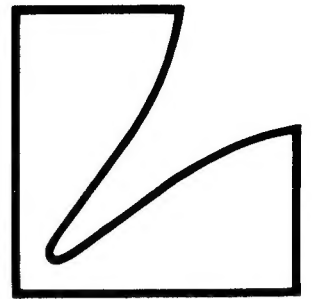
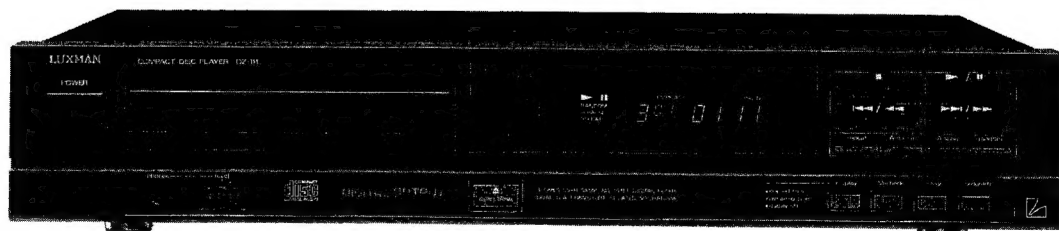


# SERVICE MANUAL



Compact Disk Player

## DZ-111



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## Specifications

Systems .....	Optical (Compact Disc System)
Quantizing Bit Number .....	16 Bit Linear System
Channels .....	2 Channels, Stereo
Pick up .....	Semiconductor Laser Pick-up
Output Voltage .....	2V±1dB
Frequency Response .....	50 ~ 20kHz±1dB
T.H.D (1kHz) .....	0.08%
S/N Ratio .....	100dB
Dynamic Range .....	85dB
Channel Separation (1kHz) .....	90dB
Headphone Output Voltage (1kHz, -20dB/8ohm) .....	190mV±1dB
Power Supply .....	AC120/220/240V, 50Hz (EK, AD Model Only) AC120V, 60HZ (UZ, UQ Model Only)
Power Consumption .....	10W
Semiconductors .....	16 IC's, 21 Transistors, 2 FET's, 27 Diodes, 1 Zener Diode
Dimension (W × H × D) .....	438 × 85 × 314 mm
Weight .....	5.5 kg

## Parts Locations and Dissassembly Instructions

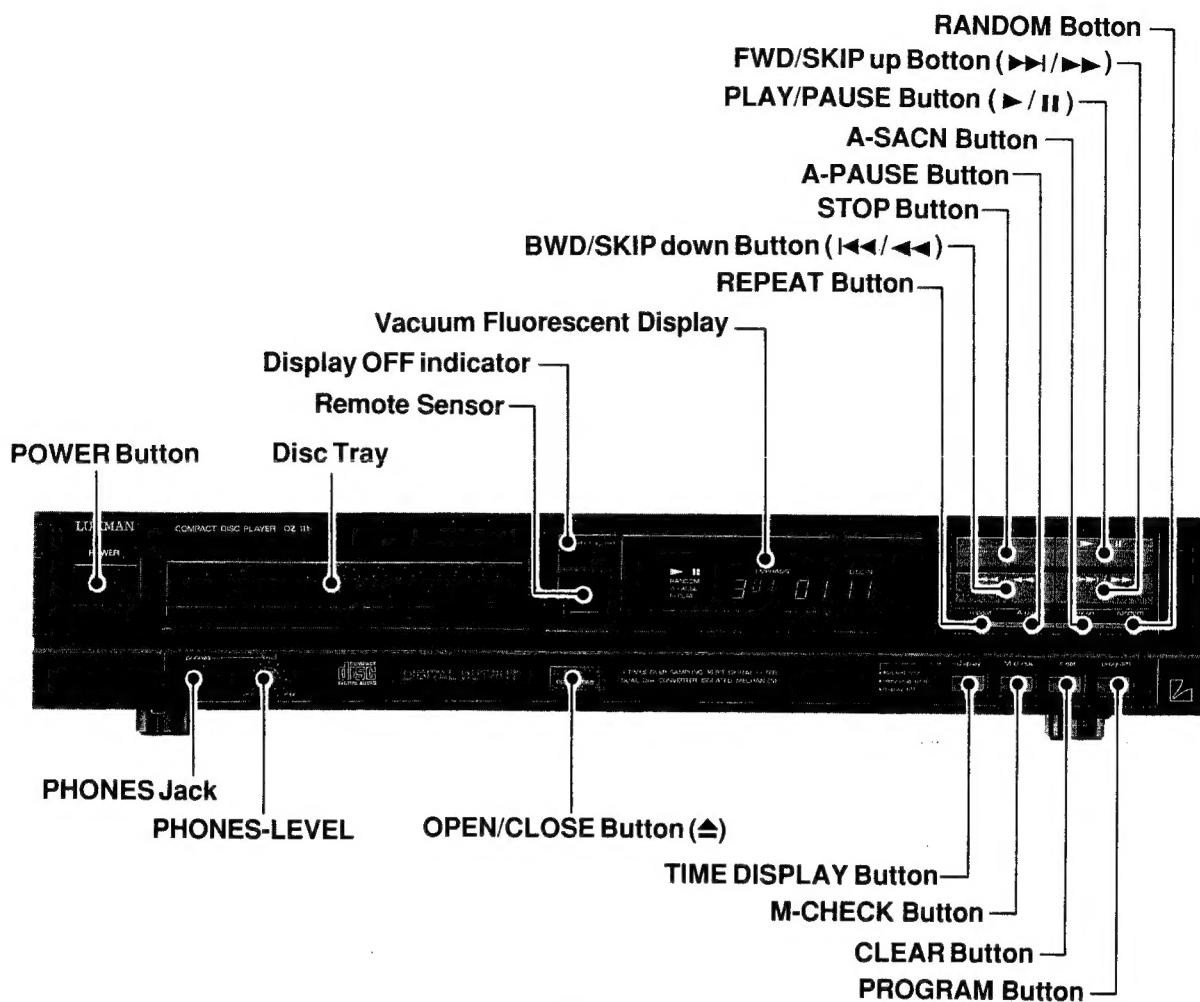


Figure 1

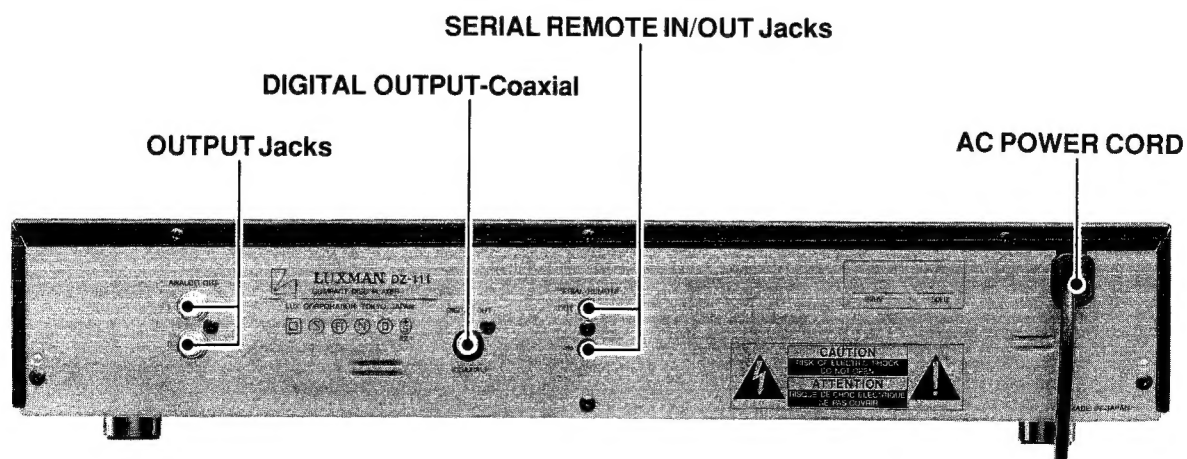


Figure 2

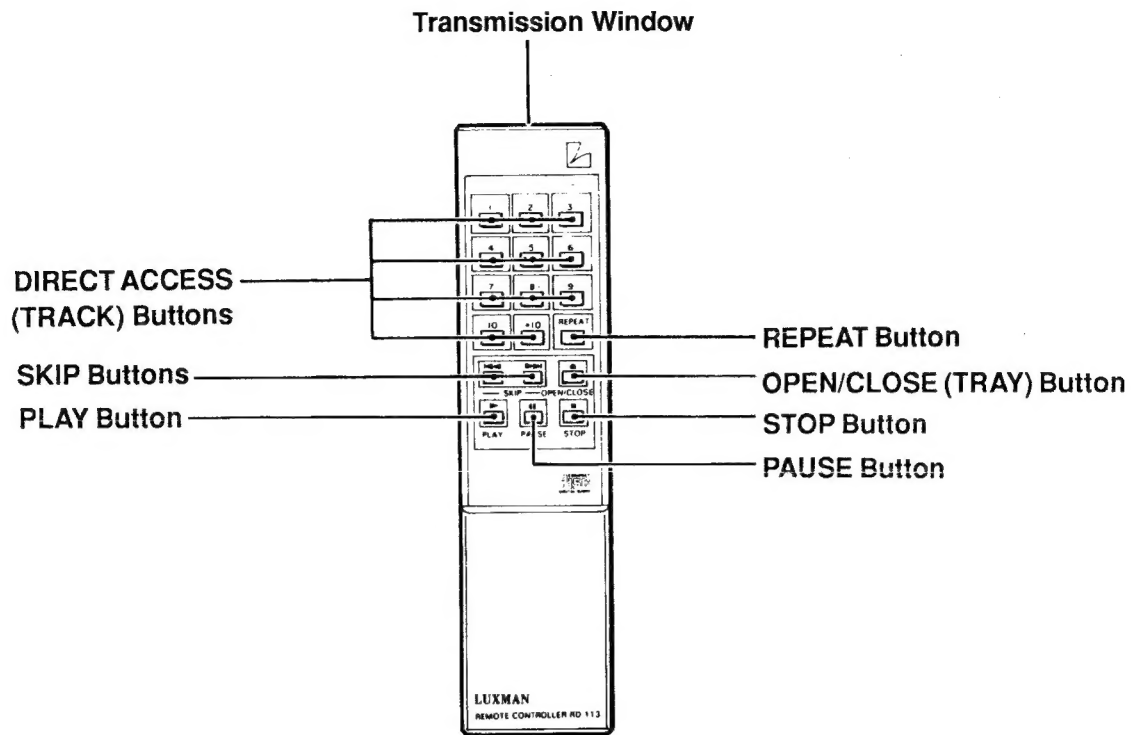


Figure 3

## <Disassembly>

### 1. Removal of Top Cover

- (1) Remove seven screws marked "■" as shown in Figure 4 and 5.
- (2) Pull out the top cover in the direction of the arrow as shown in Figure 4.

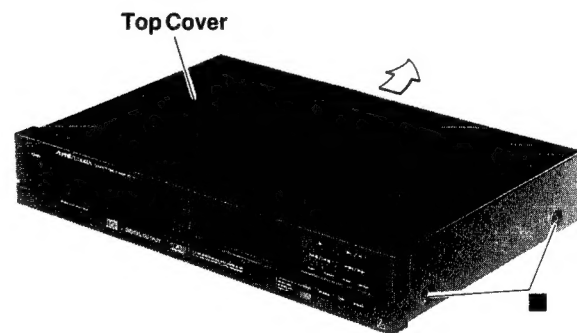


Figure 4

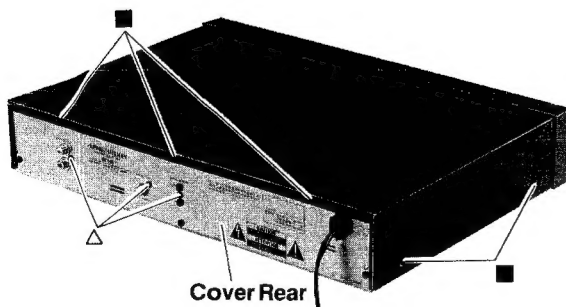


Figure 5

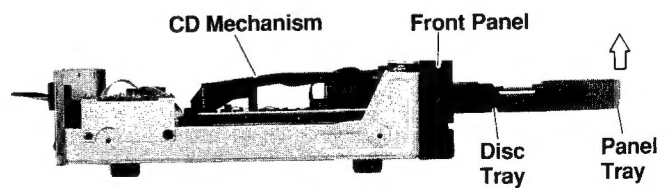


Figure 6

## 2. Removal of CD Mechanism

- (1) After removal of the top cover, open the disc tray as shown in Figure 6.
- (2) Remove the panel tray in the arrow direction as shown in Figure 6.
- (3) Remove four screws marked "○" as shown in Figure 7.
- (4) Disconnect all connectors from the CD Mechanism.

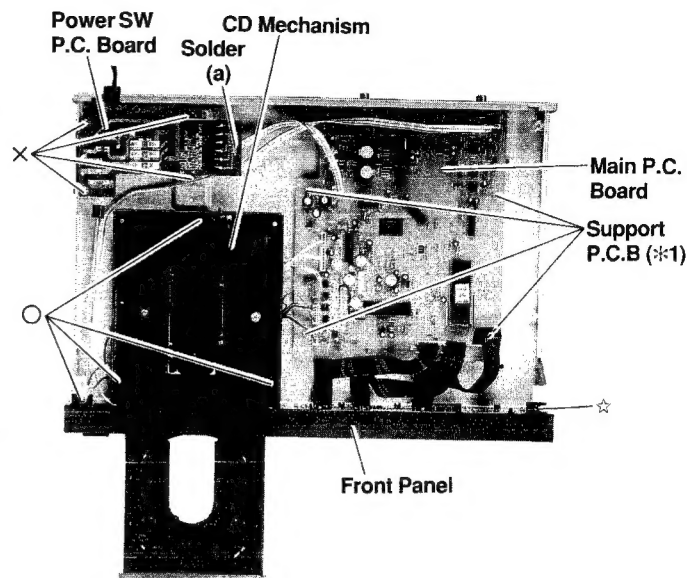


Figure 7

## 3. Removal of Front Panel and Logic/Phone P.C.Board

- (1) After removal of CD Mechanism, remove four screws marked "☆" as shown in Figure 7 and 8.
- (2) Remove six screws marked "▲" as shown in Figure 9.
- (3) Remove six hooks as shown in Figure 9.
- (4) Remove two screws marked "●" as shown Figure 9, and the Front Panel will be removed.
- (5) Remove solder (b) as shown in Figure 9, and the Logic P.C.Board will be removed.
- (6) Disconnect a connector from the Phone P.C.B. and the Phone P.C.Board will be removed.

## 4. Removal of Power SW P.C. Board

- (1) After removal of the top cover, remove four screws marked "X" and solder (a) as shown in Figure 7.

## 5. Removal of Main P.C.Board

- (1) After removal of the top cover, remove three screws marked "Δ" as shown in Figure 5.
- (2) Remove four P.C.B. supports (\*1) from Main P.C.Board as shown in Figure 7, by pushing the point "A" as shown in Figure 10.
- (3) Disconnect all connectors from Main P.C.Board.

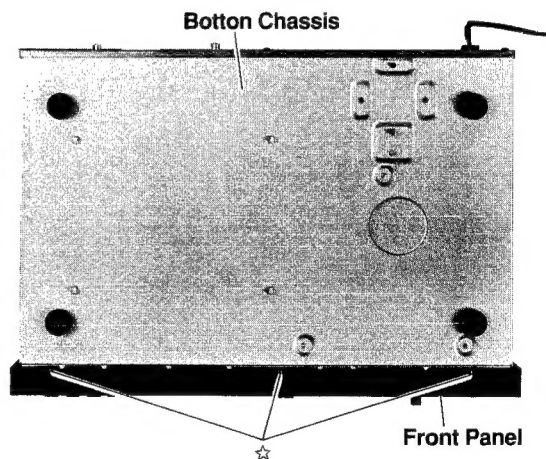


Figure 8

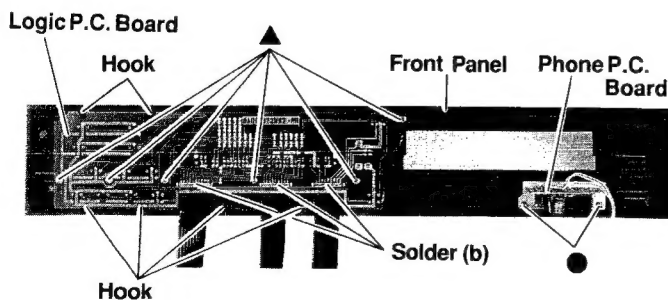


Figure 9

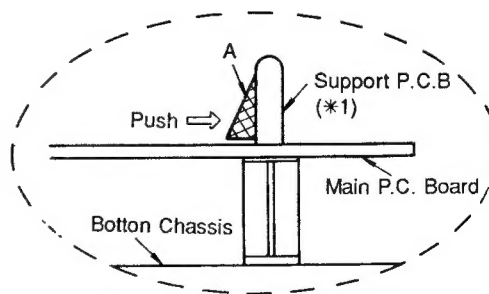


Figure 10

# Adjustment Procedures

## 1. Connections

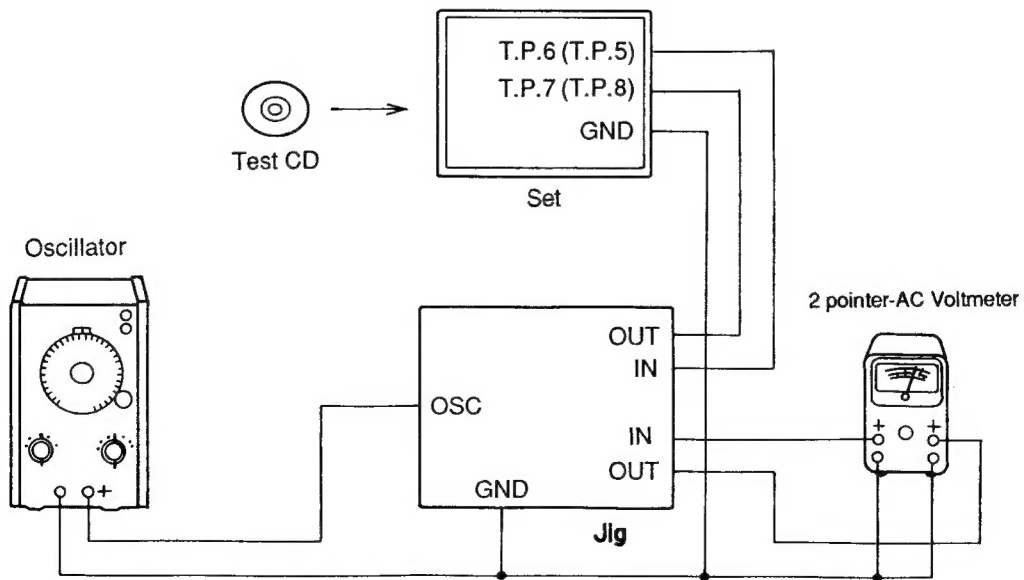
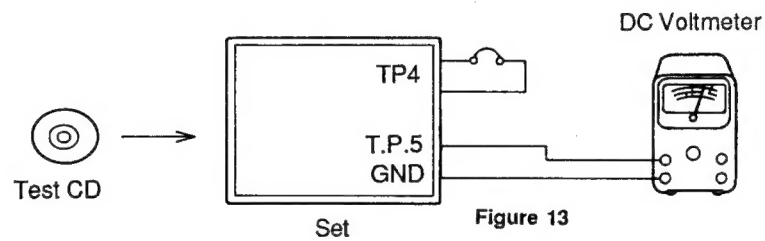
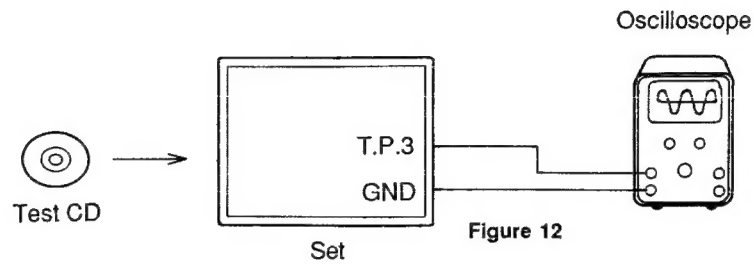
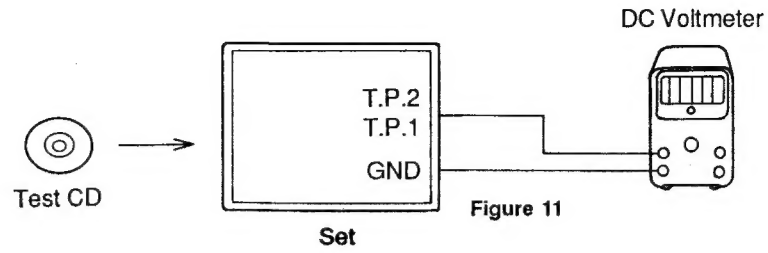


Figure 14

## 2. Switch setting

POWER Switch ..... ON  
 PLAY Switch ..... ON  
 Other Switches ..... OFF

## 3. Adjustment Procedures

Step	Discription	Connection	Oscilltor Input	Test Point	Adjustment
1	VCO Adjustment	Figure 11	—	TP1 TP2	Measure the voltage of TP1. Then set VR1303 so that the output voltage of TP2 becomes 1/2 voltage of that of TP1.
2	Focus Bias Adjustment	Figure 12	—	TP3	Set VR1202 so that the output waveform of TP3 becomes the maximum of the waveform shwon in Figure 15.
3	Tracking Error Blance Adjustment	Figure 13	—	TP4 TP5	Short-circuit TP4, and turn VR1302 completely counterclockwise. Then set VR1201 so that the output voltage of TP5 becomes 0+50/-0mV. After that, return VR1302 to near the center.
4	Tracking Gain Adjustment	Figure 14	1kHz 100mv	TP6 TP7	Set VR1301 so that the pointers of the 2 pointer-AC voltmeter overlap.
5	Focus Gain Adjustment	Figure 14	1kHz 100mv	TP5 TP8	Set VR1302 so that the pointers of the 2 pointer-AC voltmeter overlap.

### \* Test CD

SONY CD Type4 YEDS18 (2nd track) -- Tracking Error Balance Adjustment

SONY CD Type4 YEDS18 (2nd track) -- Adjustment other than Tracking Error Balance Adjustment

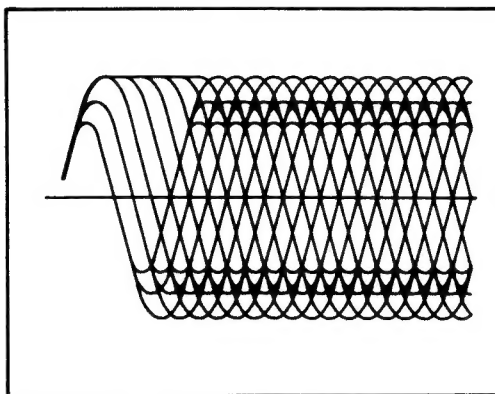


Figure 15



## Adjustment Locations

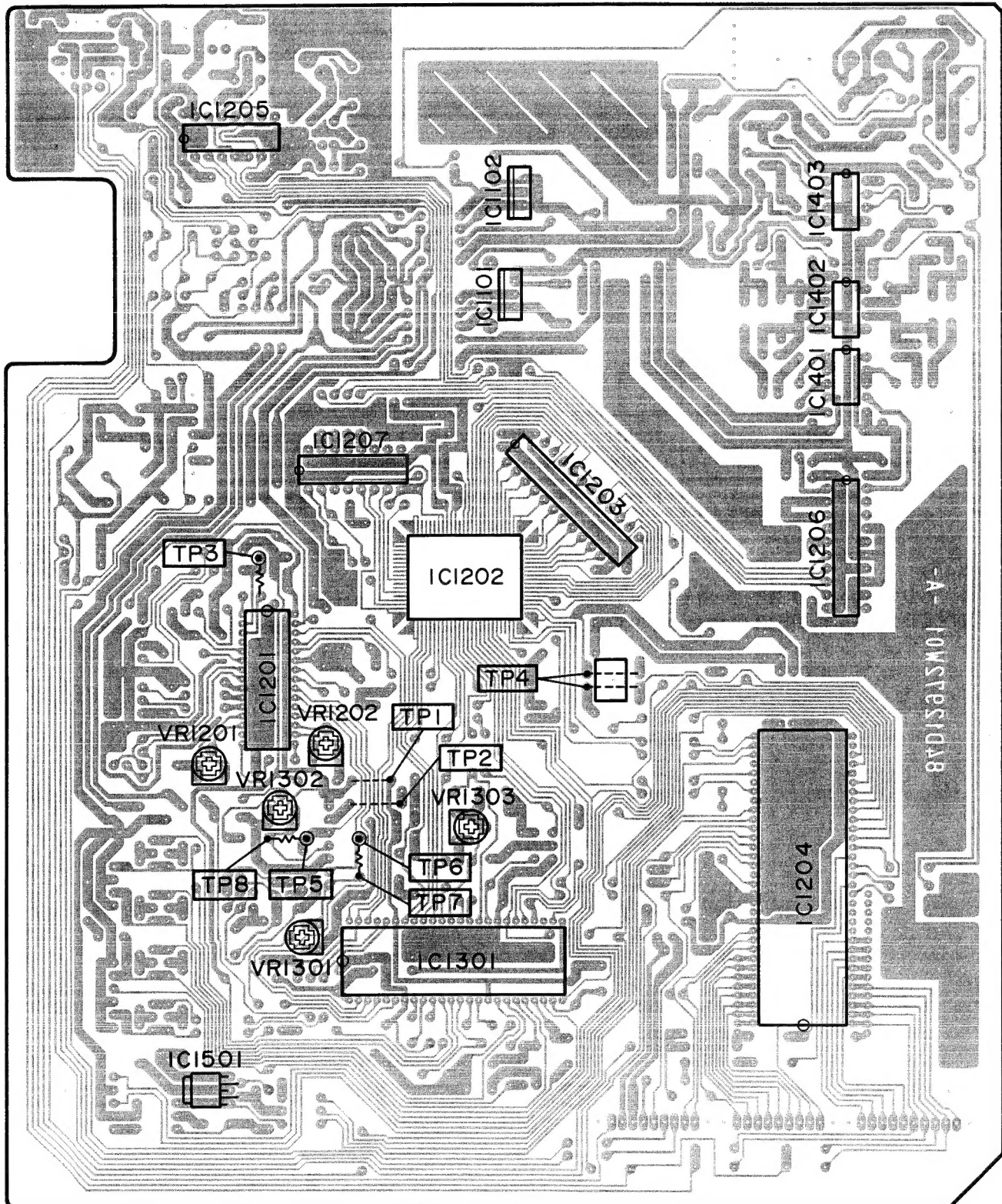
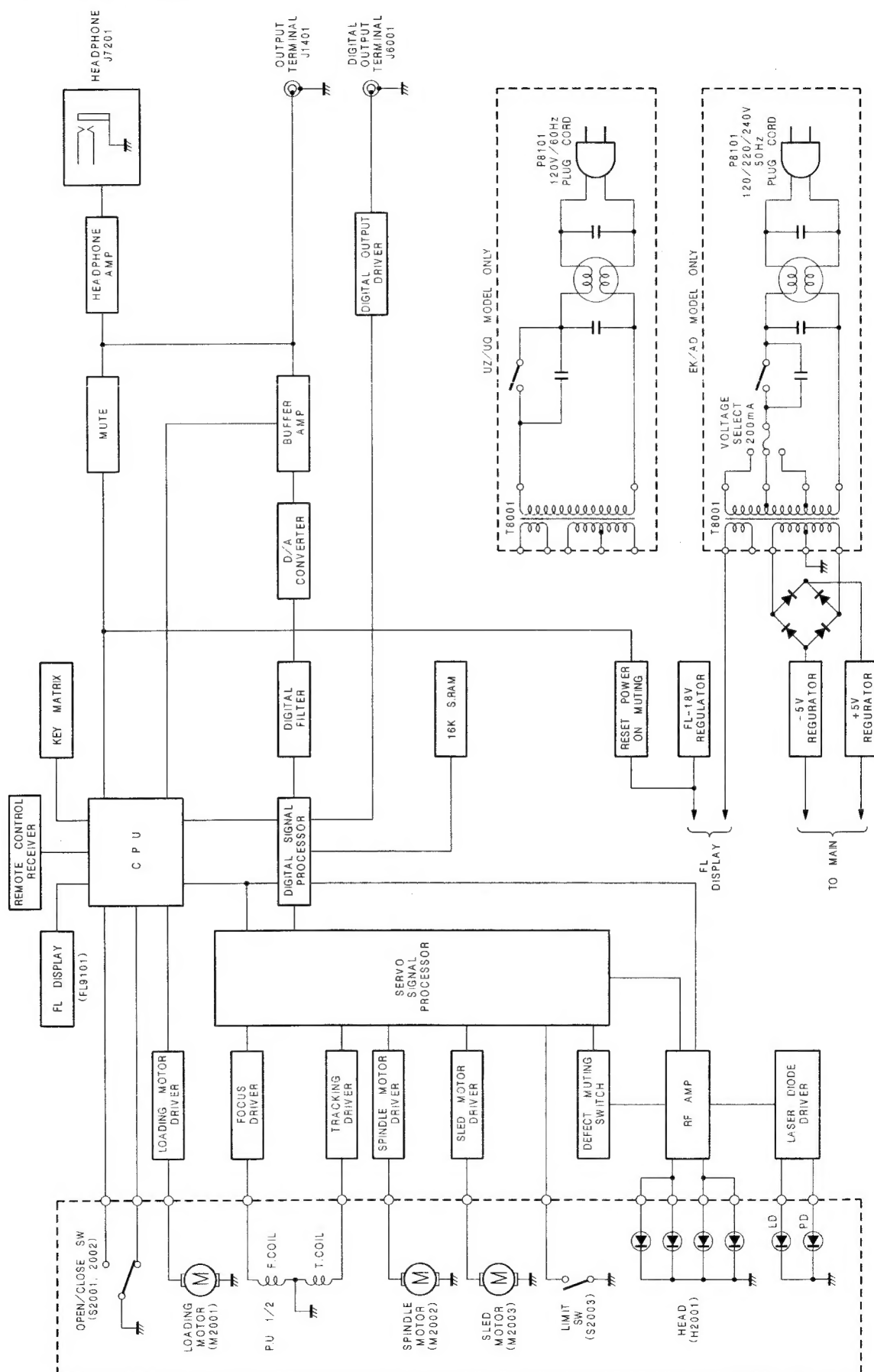


Figure 16 Main P.C. Board (Component Side)

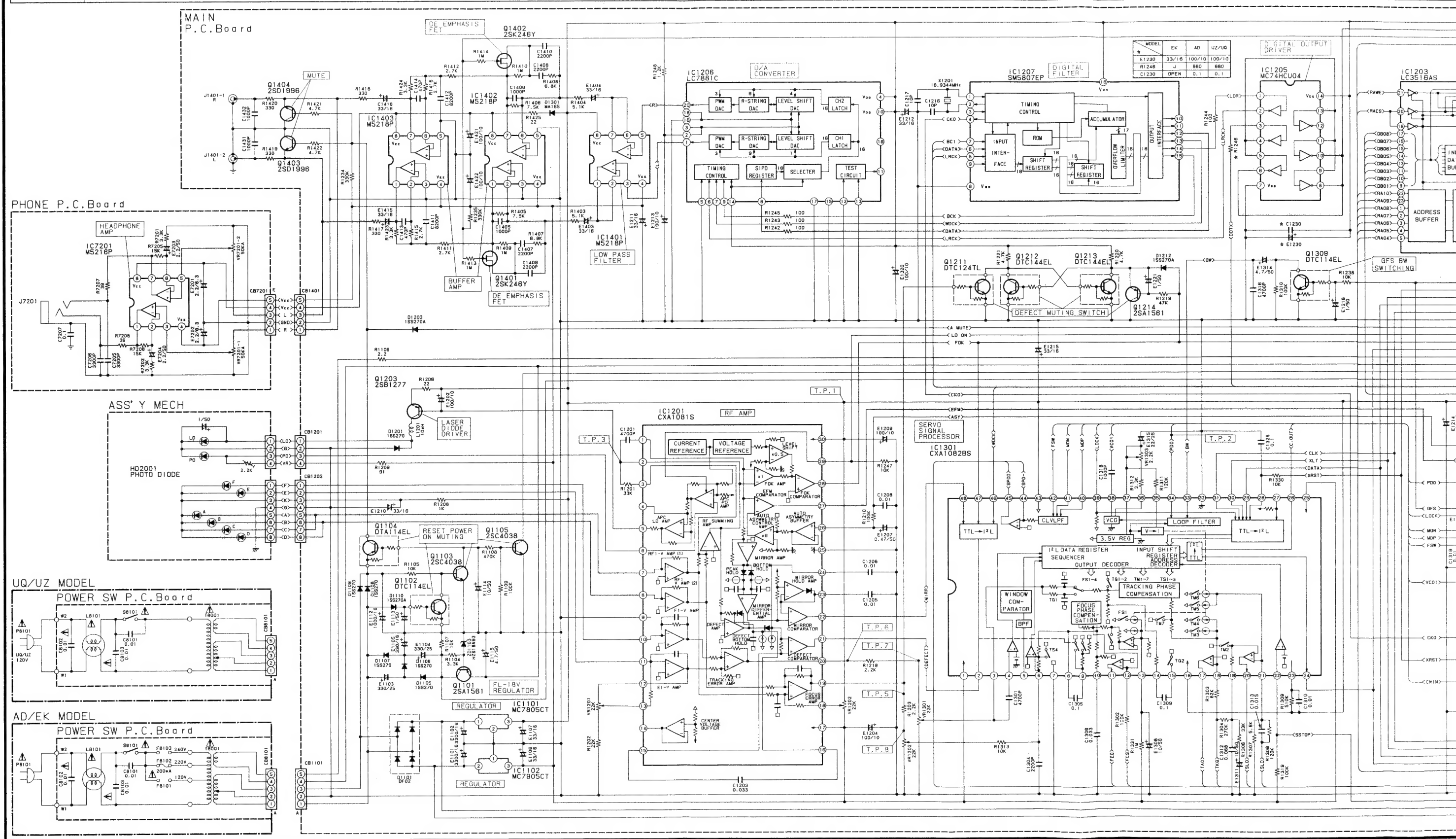


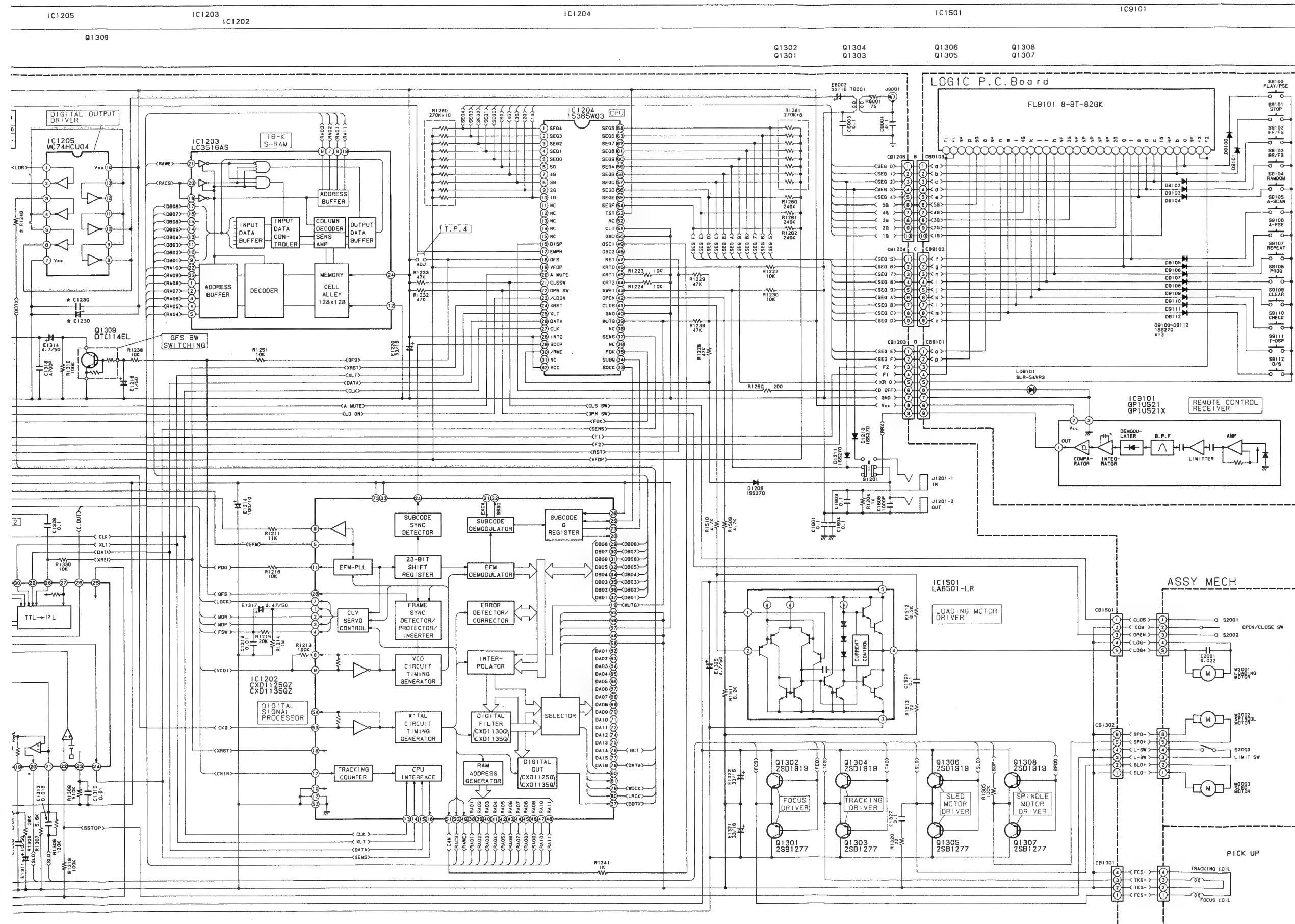
# Block Diagram



### Schematic Diagram

IC'S	IC7201	IC1403	IC1402	IC1101 IC1102	IC1401	IC1201	IC1206	IC1301	IC1207	IC1205	IC1203	IC1202
TRANSISTORS (Q)	Q1404 Q1403	Q1203 Q1104	Q1103 Q1102 Q1101	Q1401 Q1105	Q1402			Q1211	Q1212 Q1213	Q1309		Q1214





NOTE  
 1. All resistance values are in ohms, K=1,000 M=1,000,000  
 2. All capacitance values are in microfarads, P=1,000,000

Voltage Measuring Conditions  
 1. Power Supply Voltage : 220V (E/K/AD), 120V (UJ/UD)  
 2. Measuring Meter : Multi Voltmeter  
 3. Measuring Point Reference : Between Ground  
 4. Measuring Conditions : No Signal Input  
 CD in Poly Condition

IC1201				IC1202				IC1203				IC1301				IC1206			
1	0V	21	4.1	2.5V	61	1	2.5V	25	-5V	1	-5V	25	-5V	1	1.8V	1	1.8V		
2	1.3V	22	4.2	2.5V	62	2	2.5V	26	-4.3V	2	-4.3V	26	0.1V	2	3.6V	2	3.6V		
3	1.3V	23	0.1V	43	2.5V	63	3	0V	27	5V	3	0V	27	5V	3	3.6V			
4	3.1V	24	0V	44	2.5V	64	4	0V	28	5.1V	4	0V	28	5.1V	4	5.1V			
5	3.3V	25	5V	45	2.5V	65	5	0V	29	0V	5	0V	29	0V	5	0V			
6	-4.8V	26	5.1V	46	—	66	6	2.5V	30	5.1V	6	2.5V	30	5.1V	6	2.5V			
7	0V	27	2.4V	47	—	67	7	0V	31	5.1V	7	0V	31	5.1V	7	2.5V			
8	0V	28	5.1V	48	—	68	8	2.5V	32	0V	8	2.5V	32	0V	8	0V			
9	0V	29	0V	49	4.5V	69	9	0V	33	2.5V	9	0V	33	2.5V	9	2.2V			
10	0V	30	0V	50	2.7V	70	10	0V	34	2.5V	10	0V	34	2.5V	10	5.1V			
11	0V	31	0V	51	2.3V	71	11	0V	35	2.2V	11	0V	35	2.2V	11	0V			
12	-1.1V	32	0V	52	0V	72	12	0V	36	2.3V	12	0V	36	2.3V	12	0V			
13	-0.7V	33	5.1V	53	1.9V	73	13	0.3V	37	3.6V	13	0.3V	37	3.6V	13	0V			
14	0.1V	34	0V	54	—	74	14	0V	38	2.4V	14	0V	38	2.4V	14	5.1V			
15	-3V	35	0V	55	0V	75	15	0V	39	5.1V	15	0V	39	5.1V	15	0V			
16	-2.9V	36	0V	56	0V	76	16	5.1V	40	2.6V	16	5.1V	40	2.6V	16	0V			
17	-5V	37	0V	57	5.1V	77	17	0V	41	5V	17	0V	41	5V	17	0V			
18	0V	38	2.5V	58	1V	78	18	2.7V	42	2.6V	18	2.7V	42	2.6V	18	0V			
19	0.1V	39	2.5V	59	0V	79	19	0V	43	5.1V	19	0V	43	5.1V	19	0V			
20	0V	40	2.5V	60	—	80	20	0V	44	0V	20	0V	44	0V	20	1.8V			
21	-4.3V	41	—	—	—	—	21	2.5V	45	1.1V	21	2.5V	45	1.1V	—	—			
22	0V	42	—	—	—	—	22	2.5V	46	2.5V	22	2.5V	46	2.5V	—	—			
23	-1.2V	43	—	—	—	—	23	2.5V	47	4.5V	23	2.5V	47	4.5V	—	—			
24	-2V	44	—	—	—	—	24	2.5V	48	0V	24	2.5V	48	0V	—	—			
25	0V	45	—	—	—	—	25	2.5V	49	—	25	2.5V	49	—	—	—			
26	2.6V	46	—	—	—	—	26	2.5V	50	—	26	2.5V	50	—	—	—			
27	2.5V	47	—	—	—	—	27	2.5V	51	—	27	2.5V	51	—	—	—			
28	5V	48	—	—	—	—	28	2.5V	52	—	28	2.5V	52	—	—	—			
29	0.4V	49	—	—	—	—	29	2.5V	53	—	29	2.5V	53	—	—	—			
30	5.1V	50	—	—	—	—	30	2.5V	54	—	30	2.5V	54	—	—	—			

IC1205				IC1204				IC1401				IC1402				IC1403				IC7201			
1	2.5V	33	5V	1	-28V	33	5V	1	1.8V	0V	0V	1	1.8V	0V	0V	1	1.8V	0V	0V	1	1.8V		
2	2.5V	34	0.1V	2	-0.1V	34	0.1V	2	1.8V	0V	0V	2	1.8V	0V	0V	2	1.8V	0V	0V	2	1.8V		
3	2.4V	35	5V	3	-0.1V	35	5V	3	1.8V	0V	0V	3	1.8V	0V	0V	3	1.8V	0V	0V	3	1.8V		
4	2.5V	36	1.5V	4	-0.2V	36	1.5V	4	-5V	-5.1V	-5V	4	-5V	-5.1V	-5V	4	-5V	-5.1V	-5V	4	-5V		
5	2.5V	37	5V	5	-0.1V	37	5V	5	1.8V	0V	0V	5	1.8V	0V	0V	5	1.8V	0V	0V	5	1.8V		
6	2.5V	38	1.5V	6	-0.5V	38	1.5V	6	1.8V	0V	0V	6	1.8V	0V	0V	6	1.8V	0V	0V	6	1.8V		
7	0V	39	0V	7	-28V	39	0V	7	1.8V	0V	0V	7	1.8V	0V	0V	7	1.8V	0V	0V	7	1.8V		
8	2.5V	40	0V	8	-28.5V	40	0V	8	1.8V	0V	0V	8	1.8V	0V	0V	8	1.8V	0V	0V	8	1.8V		
9	2.5V	41	0V	9	-28.3V	41	0V	9	1.8V	0V	0V	9	1.8V	0V	0V	9	1.8V	0V	0V	9	1.8V		
10	2.5V	42	0V	10	-28.3V	42	0V	10	1.8V	0V	0V	10	1.8V	0V	0V	10	1.8V	0V	0V	10	1.8V		
11	2.5V	43	1.6V	11	0.4V	43	1.6V	11	1.8V	0V	0V	11	1.8V	0V	0V	11	1.8V	0V	0V	11	1.8V		
12	2.5V	44	0V	12	0.4V	44	0V	12	1.8V	0V	0V	12	1.8V	0V	0V	12	1.8V	0V	0V	12	1.8V		
13	2.5V	45	0V	13	0V	45	0V	13	1.8V	0V	0V	13	1.8V	0V	0V	13	1.8V	0V	0V	13	1.8V		
14	2.5V	46	0V	14	0.1V	46	0V	14	1.8V	0V	0V	14	1.8V	0V	0V	14	1.8V	0V	0V	14	1.8V		
15	2.5V	47	0V	15	0V	47	0V	15	1.8V	0V	0V	15	1.8V	0V	0V	15	1.8V	0V	0V	15	1.8V		
16	2.5V	48	2.3V	16	0V	48	2.3V	16	1.8V	0V	0V	16	1.8V	0V	0V	16	1.8V	0V	0V	16	1.8V		
17	2.5V	49	2.5V	17	-4.8V	49	2.5V	17	1.8V	0V	0V	17	1.8V	0V	0V	17	1.8V	0V	0V	17	1.8V		
18	2.5V	50	0V	18	5V	50	0V	18	1.8V	0V	0V	18	1.8V	0V	0V	18	1.8V	0V	0V	18	1.8V		
19	2.5V	51	0V	19	-31V	51	0V	19	1.8V	0V	0V	19	1.8V	0V	0V	19	1.8V	0V	0V	19	1.8V		
20	2.5V	52	2.8V	20	-4.6V	52	2.8V	20	1.8V	0V	0V	20	1.8V	0V	0V	20	1.8V	0V	0V	20	1.8V		
21	2.5V	53	5.1V	21	0V	53	5.1V	21	1.8V	0V	0V	21	1.8V	0V	0V	21	1.8V	0V	0V	21	1.8V		
22	2.5V	54	-31V	22	5.1V	54	-31V	22	1.8V	0V	0V	22	1.8V	0V	0V	22	1.8V	0V	0V	22	1.8V		
23	2.5V	55	-1.8V	23	0.4V	55	-1.8V	23	1.8V	0V	0V	23	1.8V	0V	0V	23	1.8V	0V	0V	23	1.8V		
24	2.5V	56	-28.4V	24	5.1V	56	-28.4V	24	1.8V	0V	0V	24	1.8V	0V	0V	24	1.8V	0V	0V	24	1.8V		
25	2.5V	57	-1.8V	25	5.1V	57	-1.8V	25	1.8V	0V	0V	25	1.8V	0V	0V	25	1.8V	0V	0V	25	1.8V		
26	2.5V	58	-1.3V	26	0V	58	-1.3V	26	1.8V	0V	0V	26	1.8V	0V	0V	26	1.8V	0V	0V	26	1.8V		
27	2.5V	59	-0.8V	27	5.1V	59	-0.8V	27	1.8V	0V	0V	27	1.8V	0V	0V	27	1.8V	0V	0V	27	1.8V		
28	2.5V	60	-0.5V	28	5.1V	60	-0.5V	28	1.8V	0V	0V	28	1.8V	0V	0V	28	1.8V	0V	0V	28	1.8V		
29	2.5V	61	0V	29	0V	61	0V	29	1.8V	0V	0V	29	1.8V	0V	0V	29	1.8V	0V	0V	29	1.8V		
30	2.5V	62	-18.5V	30	5.1V	62	-18.5V	30	1.8V	0V	0V	30	1.8V	0V	0V	30	1.8V	0V	0V	30	1.8V		
31	2.5V	63	-23.2V	31	1.6V	63	-23.2V	31	1.8V	0V	0V	31	1.8V	0V	0V	31	1.8V	0V	0V	31	1.8V		
32	2.5V	64	-1.3V	32	5.1V	64	-1.3V	32	1.8V	0V	0V	32	1.8V	0V	0V	32	1.8V	0V	0V	32	1.8V		

IC1501				IC1401				IC1402				IC1403				IC7201					
1	0V	1	0V	1	0V	0V	0V	1	0V	0V	0V	1	0V	0V	0V	1	0V	0V	0V	1	0V
2	0V	2	0V	2	0V	0V	0V	2	0V	0V	0V	2	0V	0V	0V	2	0V	0V	0V	2	0V
3	-11V	3	-11V	3	-11V	0V	-4.4V	3	-11V	0V	-4.4V	3	-11V	0V	-4.4V	3	-11V	0V	-4.4V	3	-11V
4	0V	4	0V	4	0V	0V	-4.4V	4	0V	0V	-4.4V	4	0V	0V	-4.4V	4	0V	0V	-4.4V	4	0V
5	10.2V	5	10.2V	5	10.2V	0V	-4.4V	5	10.2V	0V	-4.4V	5	10.2V	0V	-4.4V	5	10.2V	0V	-4.4V	5	10.2V

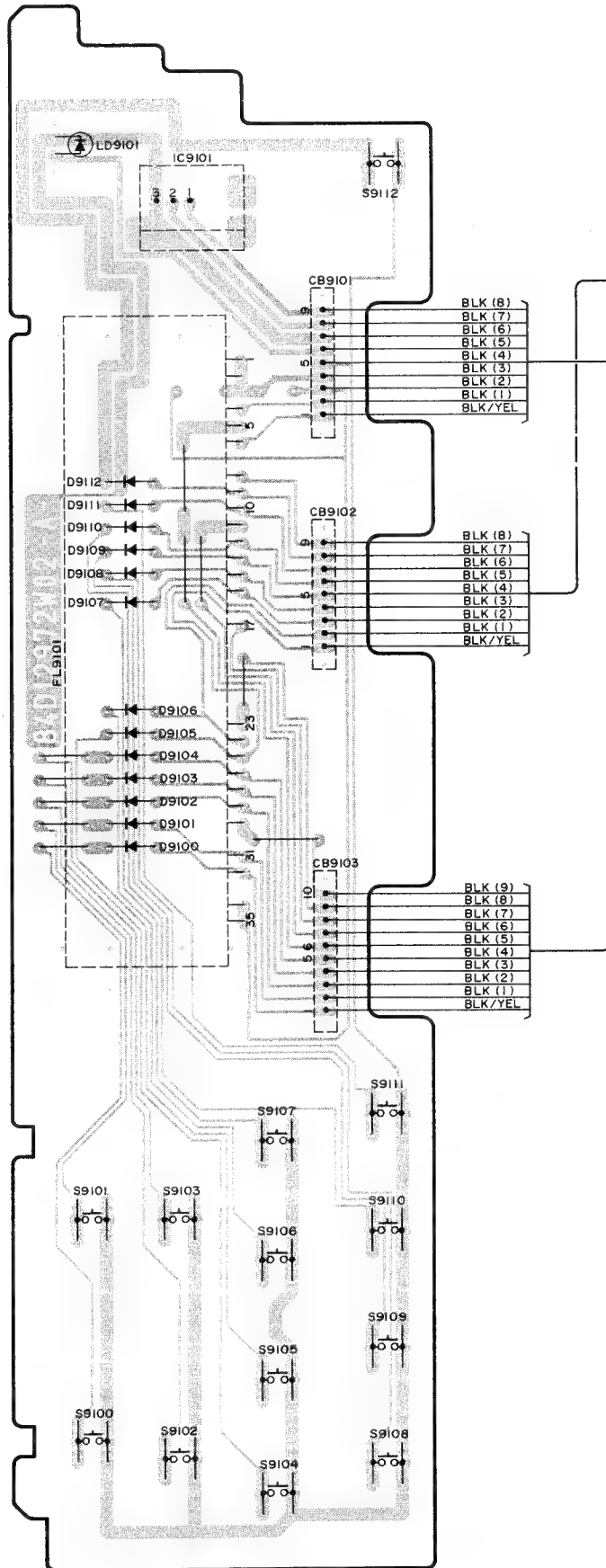
  

IC1101				IC1102				IC9101					
1	10.2V	1	10.2V	1	10.2V	1	10.2V	1	10.2V	1	10.2V	1	10.2V
2	0V	2	0V	2	0V	2	0V	2	0V	2	0V	2	0V
3	5.1V	3	5.1V	3	5.1V	3	5.1V	3	5.1V	3	5.1V	3	5.1V

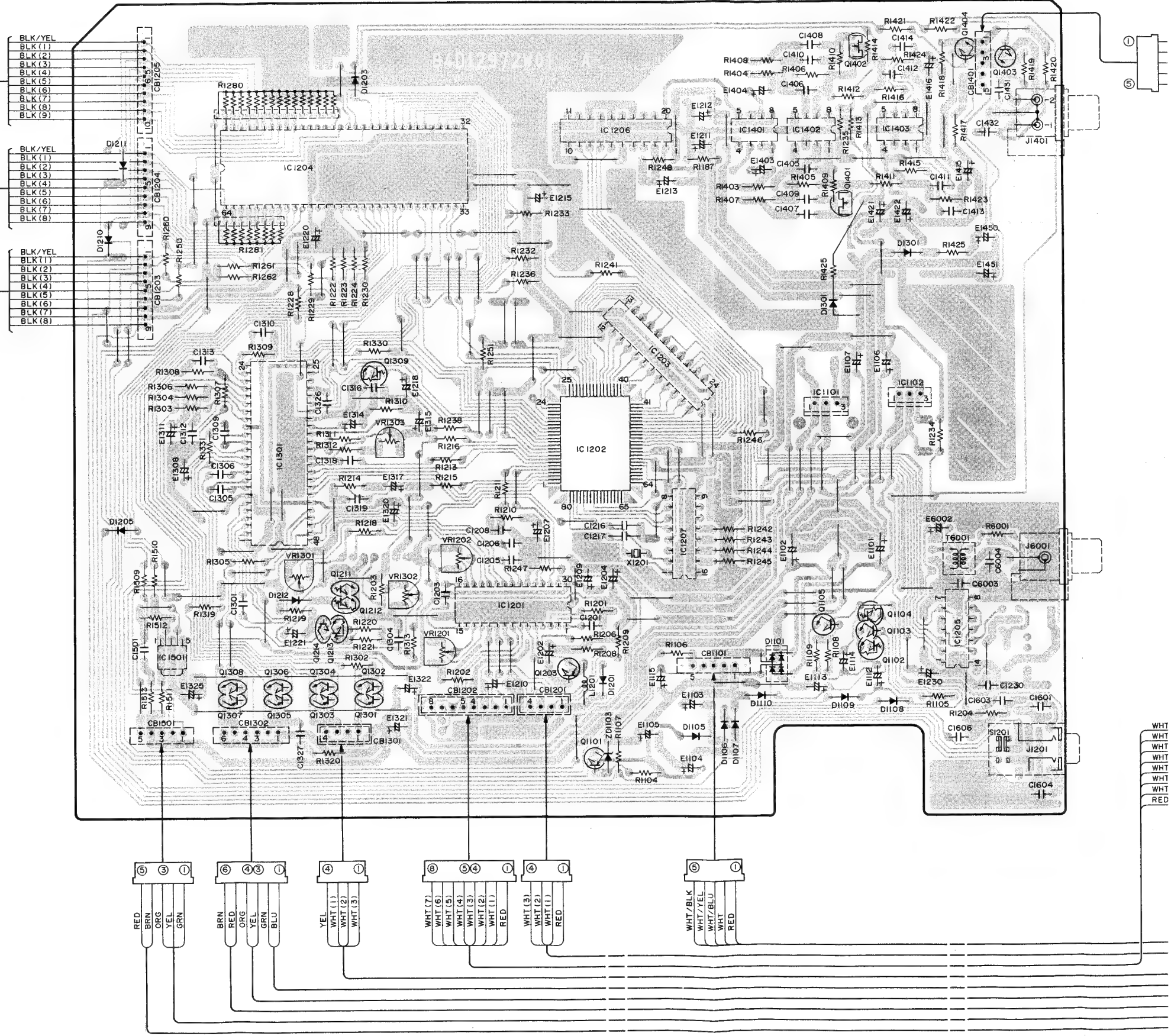


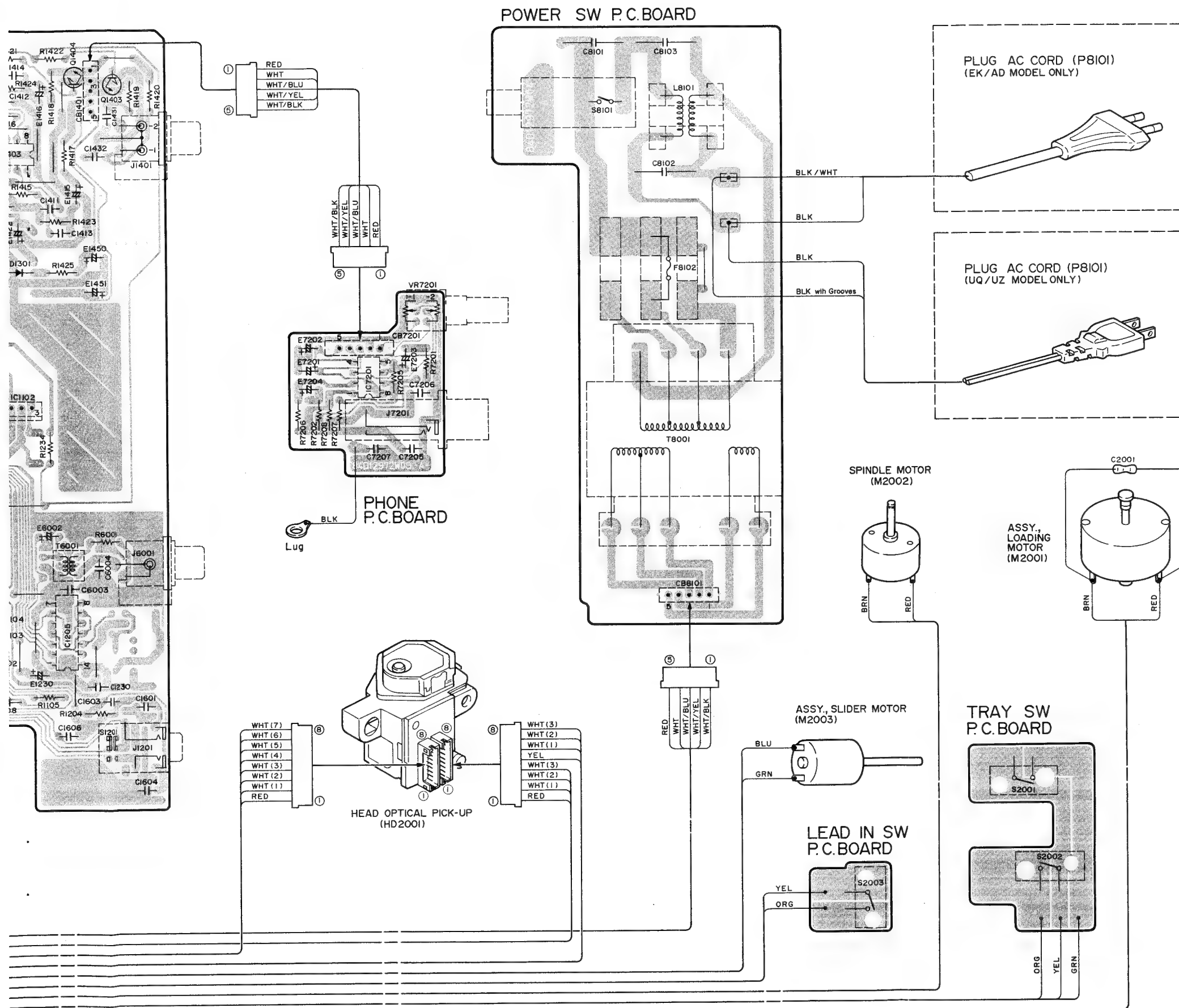
# Parts Layout on P. C. Boards and Wiring Diagram

LOGIC P.C. BOARD



MAIN P.C. BOARD





# Electrical Parts List

Resistor: Carbon resistors under 1/8 watts are not mentioned in the parts list. please confirm them by schematic diagram.

Capacitor:  $\mu$ F-microfarads, pF-picofarads

Abbreviations				
CAP.-Capacitor		CER.-Ceramic		
CP.-Chip		ELY.-Electrolytic		
LED.-Light Emitting Diode		MIC.-Mica		
MO.-Metal Oxide Film		MYL.-Mylar		
PP.-Polypropylene		SOL.-Solid		
TAN.-Tantalum		ZEN.-Zener		
Symbol No.	Part No.	Description		
Main P.C. Board				
IC's				
IC1101	51T94884F01	MC7805 CT		
IC1102	51T94885F01	MC7905 CT		
IC1201	51T84721F01	CXA1081S		
IC1202	51T84720F01	CXD1125QZ		
or	51T84719F01	CXD1135QZ		
IC1203	51T84723F01	LC3516AS		
or	51T80623F02	CXK5816SP		
IC1204	51T15365W03	15365W03		
IC1205	51T94890F01	MC74HCU04		
IC1206	51T95181F02	LC7881C		
IC1207	51T15265W02	SM5807EP		
IC1301	51T84722F02	CXA1082BS		
IC1401	51T90149F01	M5218P		
or	51T15329W01	BA15218		
IC1402	51T90149F01	M5218P		
or	51T15329W01	BA15218		
IC1403	51T90149F01	M5218P		
or	51T15329W01	BA15218		
IC1501	51T90889F01	LA6501		
Transistors				
Q1101	48T82757F01	2SA1561		
Q1102	48T82763F02	DTC114EL		
Q1103	48T82758F01	2SC4038		
Q1104	48T82762F02	DTA114EL		
Q1105	48T82758F01	2SC4038		
Q1203	48T82759F01	2SB1277		
Q1211	48T82763F11	DTC124TL		
Q1212	48T82763F04	DTC144EL		
Q1213	48T82763F04	DTC144EL		
Q1214	48T82757F01	2SA1561		
Q1301	48T82759F01	2SB1277		
Q1302	48T83275F01	2SD1919		
Q1303	48T82759F01	2SB1277		
Q1304	48T83275F01	2SD1919		
Q1305	48T82759F01	2SB1277		

Symbol No.	Part No.	Description		
Q1306	48T83275F01	2SD1919		
Q1307	48T82759F01	2SB1277		
Q1308	48T83275F01	2SD1919		
Q1309	48T82763F02	DTC114EL		
Q1401	48T66948F02	FET.2SK246		
Q1402	48T66948F02	FET.2SK246		
Q1403	48T90183F01	2SD1996		
Q1404	48T90183F01	2SD1996		
Diodes				
D1101	48T15662W01	DF02		
D1105	48T84758F01	1SS270		
or	48T58583F01	1SS176		
D1106	48T84758F01	1SS270		
or	48T58583F01	1SS176		
D1107	48T84758F01	1SS270		
or	48T58583F01	1SS176		
D1108	48T84758F01	1SS270		
or	48T58583F01	1SS176		
D1109	48T84758F01	1SS270		
or	48T58583F01	1SS176		
D1110	48T84758F01	1SS270		
or	48T58583F01	1SS176		
D1201	48T84758F01	1SS270		
or	48T58583F01	1SS176		
D1203	48T84758F01	1SS270		
or	48T58583F01	1SS176		
D1205	48T84758F01	1SS270		
or	48T58583F01	1SS176		
D1210	48T84758F01	1SS270		
or	48T58583F01	1SS176		
D1211	48T84758F01	1SS270		
or	48T58583F01	1SS176		
D1212	48T84758F01	1SS270		
or	48T58583F01	1SS176		
D1301	48T44813F02	MA165		
ZD1103	48T90517F64	ZEN.HZS 18NB3		
Capacitors				
E1101	23T00181L23	ELY.. 3300 $\mu$ F/16V		
E1102	23T00181L23	ELY.. 3300 $\mu$ F/16V		
E1103	23S40657F65	ELY.. 330 $\mu$ F/25V		
E1104	23S40657F65	ELY.. 330 $\mu$ F/25V		
E1105	23S40657F61	ELY.. 330 $\mu$ F/16V		

Symbol No.	Part No.	Description			Symbol No.	Part No.	Description		
E1108	23T00180L08	ELY.. 33 $\mu$ F/16V			C1316	08T57705F63	MYL.. 4700pF		
E1107	23T00180L08	ELY.. 33 $\mu$ F/16V			E1317	23T00180L20	ELY.. 0.47 $\mu$ F/50V		
E1112	23T81002F35	ELY.. 1000 $\mu$ F/16V			C1318	08T57705F55	MYL.. 1000pF		
E1113	23T00180L21	ELY.. 1 $\mu$ F/50V			C1319	08T57705F67	MYL.. 0.01 $\mu$ F		
E1114	23T00180L25	ELY.. 10 $\mu$ F/50V			E1320	23T00136L16	ELY.. 100 $\mu$ F/10V		
E1115	23T00180L24	ELY.. 4.7 $\mu$ F/50V			E1321	23T00180L08	ELY.. 33 $\mu$ F/16V		
C1201	08T57705F63	MYL.. 4700pF			E1322	23T00180L08	ELY.. 33 $\mu$ F/16V		
E1202	23T00180L04	ELY.. 100 $\mu$ F/10V			E1325	23T00180L24	ELY.. 4.7 $\mu$ F/50V		
C1203	08T57705F73	MYL.. 0.033 $\mu$ F			C1326	08T57298F01	CER.. 0.1 $\mu$ F		
E1204	23T00149L13	ELY.. 100 $\mu$ F/10V			C1327	08T57705F79	MYL.. 0.1 $\mu$ F		
C1205	08T57705F67	MYL.. 0.01 $\mu$ F			E1403	23T00180L08	ELY.. 33 $\mu$ F/16V		
C1206	08T57705F67	MYL.. 0.01 $\mu$ F			E1404	23T00180L08	ELY.. 33 $\mu$ F/16V		
E1207	23T00180L20	ELY.. 0.47 $\mu$ F/50V			C1405	08T57705F55	MYL.. 1000pF		
C1208	08T57705F67	MYL.. 0.01 $\mu$ F			C1406	08T57705F55	MYL.. 1000pF		
E1209	23T00149L13	ELY.. 100 $\mu$ F/10V			C1407	08T57705F59	MYL.. 2200pF		
E1210	23T00180L08	ELY.. 33 $\mu$ F/16V			C1408	08T57705F59	MYL.. 2200pF		
E1211	23T00180L08	ELY.. 33 $\mu$ F/16V			C1409	08T57705F59	MYL.. 2200pF		
E1212	23T00180L08	ELY.. 33 $\mu$ F/16V			C1410	08T57705F59	MYL.. 2200pF		
E1213	23T00180L04	ELY.. 100 $\mu$ F/10V			C1411	08T57705F66	MYL.. 8200pF		
E1214	23T00180L04	ELY.. 100 $\mu$ F/10V			C1412	08T57705F66	MYL.. 8200pF		
E1215	23T00180L08	ELY.. 33 $\mu$ F/16V			C1413	08T57705F51	MYL.. 470pF		
C1216	08T55260F13	CER.. 10pF			C1414	08T57705F51	MYL.. 470pF		
C1217	08T55260F13	CER.. 10pF			E1415	23T00180L08	ELY.. 33 $\mu$ F/16V		
E1218	23T00180L21	ELY.. 1 $\mu$ F/50V			E1416	23T00180L08	ELY.. 33 $\mu$ F/16V		
E1220	23T00180L08	ELY.. 33 $\mu$ F/16V			E1421	23T00149L13	ELY.. 100 $\mu$ F/10V		
E1221	23T00180L21	ELY.. 1 $\mu$ F/50V			E1422	23T00149L13	ELY.. 100 $\mu$ F/10V		
▲ C1230	08T57298F01	CER.. 0.1 $\mu$ F			C1431	08T57705F55	MYL.. 1000pF		
■ C1230	08T57298F01	CER.. 0.1 $\mu$ F			C1432	08T57705F55	MYL.. 1000pF		
◆ C1230	08T57298F01	CER.. 0.1 $\mu$ F			C1501	08T57705F79	MYL.. 0.1 $\mu$ F		
● E1230	23T00180L08	ELY.. 33 $\mu$ F/16V			C1601	08T57298F01	CER.. 0.1 $\mu$ F		
▲ E1230	23T00149L13	ELY.. 100 $\mu$ F/10V			C1603	08T57298F01	CER.. 0.1 $\mu$ F		
■ E1230	23T00149L13	ELY.. 100 $\mu$ F/10V			C1604	08T57298F01	CER.. 0.1 $\mu$ F		
◆ E1230	23T00149L13	ELY.. 100 $\mu$ F/10V			C1606	08T40794F50	CER.. 1000pF		
C1301	08T57705F63	MYL.. 4700pF			E6002	23T00180L08	ELY.. 33 $\mu$ F/16V		
C1304	08T57705F59	MYL.. 2200pF			C6003	08T57298F01	CER.. 0.1 $\mu$ F		
C1305	08T57705F79	MYL.. 0.1 $\mu$ F			C6004	08T57298F01	CER.. 0.1 $\mu$ F		
C1306	08T57705F73	MYL.. 0.033 $\mu$ F			Coil				
E1308	23T00180L25	ELY.. 10 $\mu$ F/50V			L1201	24T50508F22	Inductor. 10 $\mu$ H		
C1309	08T57705F79	MYL.. 0.1 $\mu$ F			Trans				
C1310	08T57705F67	MYL.. 0.01 $\mu$ F			T6001	25T94882F01	PULS(1/10)		
E1311	23T00180L25	ELY.. 10 $\mu$ F/50V			Crystal				
C1312	08T57705F77	MYL.. 0.068 $\mu$ F			X1201	48T84727F02	16.9344MHz		
C1313	08T57705F69	MYL.. 0.015 $\mu$ F							
E1314	23T00180L24	ELY.. 4.7 $\mu$ F/50V							
E1315	23T00180L12	ELY.. 22 $\mu$ F/25V							

Note : ● ; For General Foreign model only (EK)

▲ ; For West Germany model only (AD)

■ ; For North American model only (UZ)

◆ ; For Canadian model only (UQ)

others ; Common



Symbol No.	Part No.	Description		
<b>Resistors</b>				
R1280	06T74182F09	Block 270K ohm x10		
R1281	06T74182F08	Block 270K ohm x8		
VR1201	18T15356W15	Variable.RH0634C 22K ohm		
VR1202	18T15356W15	Variable.RH0634C 22K ohm		
VR1301	18T15356W15	Variable.RH0634C 22K ohm		
VR1302	18T15356W15	Variable.RH0634C 22K ohm		
VR1303	18T15356W09	Variable.RH0634C 2.2K ohm		
<b>Jacks</b>				
J1201 (S1201)	09T84124F01	Head-Phone Mini		
J1401	09T15974W03	T6302-DZ111		
J6001	09T15627W02	T6314 ORG		
<b>Logic P.C. Board</b>				
<b>IC's</b>				
IC9101 or	51T16094W01 51T16094W02	GP1U521 GP1U521X		
<b>Diodes</b>				
D9100 or	48T84758F01 48T58583F01	1SS270 1SS176		
D9101 or	48T84758F01 48T58583F01	1SS270 1SS176		
D9102 or	48T84758F01 48T58583F01	1SS270 1SS176		
D9103 or	48T84758F01 48T58583F01	1SS270 1SS176		
D9104 or	48T84758F01 48T58583F01	1SS270 1SS176		
D9105 or	48T84758F01 48T58583F01	1SS270 1SS176		
D9106 or	48T84758F01 48T58583F01	1SS270 1SS176		
D9107 or	48T84758F01 48T58583F01	1SS270 1SS176		
D9108 or	48T84758F01 48T58583F01	1SS270 1SS176		
D9109 or	48T84758F01 48T58583F01	1SS270 1SS176		
D9110 or	48T84758F01 48T58583F01	1SS270 1SS176		
D9111 or	48T84758F01 48T58583F01	1SS270 1SS176		
D9112 or	48T84758F01 48T58583F01	1SS270 1SS176		

Symbol No.	Part No.	Description		
<b>Switches</b>				
S9100	40T83324F11	SW.TACT SKHHAP (PLY/PSE)		
S9101	40T83324F11	SW.TACT SKHHAP (STOP)		
S9102	40T83324F11	SW.TACT SKHHAP (FF/FS)		
S9103	40T83324F11	SW.TACT SKHHAP (BS/FB)		
S9104	40T83324F06	SW.TACT SKHHAN (RANDOM)		
S9105	40T83324F06	SW.TACT SKHHAN (A-SCAN)		
S9106	40T83324F06	SW.TACT SKHHAN (A-PSE)		
S9107	40T83324F06	SW.TACT SKHHAN (REPEAT)		
S9108	40T83324F11	SW.TACT SKHHAP (PROG)		
S9109	40T83324F11	SW.TACT SKHHAP (CLEAR)		
S9110	40T83324F11	SW.TACT SKHHAP (CHECK)		
S9111	40T83324F11	SW.TACT SKHHAP (T-DSP)		
S9112	40T83324F11	SW.TACT SKHHAP (O/C)		
<b>LED</b>				
LD9101	48T66616F02	SLR-54VR3(RED)		
<b>Phone P.C. Board</b>				
<b>IC</b>				
IC7201	51T81896F01	M5216P		
<b>Capacitors</b>				
E7201	23T16145W14	ELY.. 22 $\mu$ F /6.3V		
E7202	23T16145W14	ELY.. 22 $\mu$ F /6.3V		
E7203	23T16145W06	ELY.. 2.2 $\mu$ F/50V		
E7204	23T16145W06	ELY.. 2.2 $\mu$ F/50V		
C7205	08T57705F61	MYL.. 3300pF		
C7206	08T57705F61	MYL.. 3300pF		
C7207	08T57298F01	CER.. 0.1 $\mu$ F		
<b>Jack</b>				
J7201	09T74077F02	Phones		
<b>Resistors</b>				
VR7201	18T84123F01	Variable RK9A00 50K ohm x2		

# Cabinet Assembly Parts List

Note: The parts without part numbers are not supplied.

Symbol No.	Part No.	Description		
Power SW P.C. Board				
Capacitors				
	C8101	08T00196L01 MF..	0.01 $\mu$ F	
	C8102	08T00196L01 MF..	0.01 $\mu$ F	
	C8103	08T00196L01 MF..	0.01 $\mu$ F	
Coils				
●	L8101	24T15610W01	FLT., PLA6003R3A	
▲	L8101	24T16397W01	FLT., Line SU10V-20006	
■	L8101	24T16397W01	FLT., Line SU10V-20006	
◆	L8101	24T16397W01	FLT., Line SU10V-20006	
Switch				
	S8101	40T84122F01	Power Sddle	
Miscellaneous				
●	F8102	65T42077U09	Fuse, Semko 200mA	
▲	F8102	65T42077U09	Fuse, Semko 200mA	
	FL9101	65T15806W01	Display, FL 8-BT-82GK	
●	P8101	28T43812P04	Plug, Cord (AC)	
▲	P8101	28T43812P04	Plug, Cord (AC)	
■	P8101	28T55335F02	Plug, Cord (AC)	
◆	P8101	28T55335F02	Plug, Cord (AC)	
●	T8001	25T16090W01	Trans. Power	
▲	T8001	25T16090W01	Trans. Power	
■	T8001	25T16092W01	Trans. Power	
◆	T8001	25T16092W01	Trans. Power	

Symbol No.	IN-dex	Part No.	Description		
	1	5-C	01C12898W01	Panel, Front Assy.	
	2	2-D	15C12903W01	Cover, Top	
●	4	4-G	15C12902W04	Cover, Rear	
▲	4	4-G	15C12902W04	Cover, Rear	
■	4	4-G	15C12902W06	Cover, Rear	
◆	4	4-G	15C12902W06	Cover, Rear	
	5	3-F	43T16093W01	Support, Cord	
	6	5-E	75A52969F01	Pad., Trann-Leg	
	7	4-E	07A91046F01	Support, PCB	
	8	1-C	03S44205G49	Screw, Bind (M4x8)	
	9		03S71031F04	Screw, Bind (M3x8)	
	10	5-E	03S71677F25	Screw, Bind (M4x12)	
	11	2-B	47A12896W02	Shaft, Power	
	12	2-C	43A83885F01	Spacer, Rubber	
	14	2-C	03A83946F01	Screw, Special (M4x35)	
	15	2-C	04S40071G14	Washer, Spring (M3)	
	16	2-C	04S40070G59	Washer, Flat (M4)	
	17		03S71031F02	Screw, Bind (M2.6x8)	
	18	1-B	03C42723U01	Screw, Cup (M3x6)	
	21	3-E	03C40121T05	Screw, W/Double Washer (M3x8)	
●	24	1-B	09T51410F01	Holder, Fuse	
▲	24	1-B	09T51410F01	Holder, Fuse	
	27	4-B	01T15318W01	Assy., Lug Wire 1P	
	30	4-C	07A83876F01	Support, FL	
	31	4-C	43A61758F01	Spacer, Lamp	
	32		03S40036U01	Screw, W/Washer (M4x8)	
	33	2-B	64B10696W01	Panel, Tray	
	34	5-B	36A55234F04	Knob, Control	
	35	4-G	16T82537F01	Cap, Pin Jack	
	36	4-B	01T92483F01	Assy., Lug Wire 1P	
	37	5-C	75S12196W21	Cushion, Rubber	

Note: ●; For General Foreign model only (EK)

■; For North American model only (UZ)

▲; For West Germany model only (AD)

◆; For Canadian model only (UQ)

others; Common

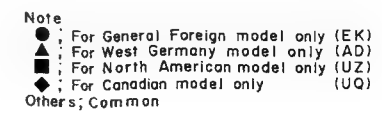
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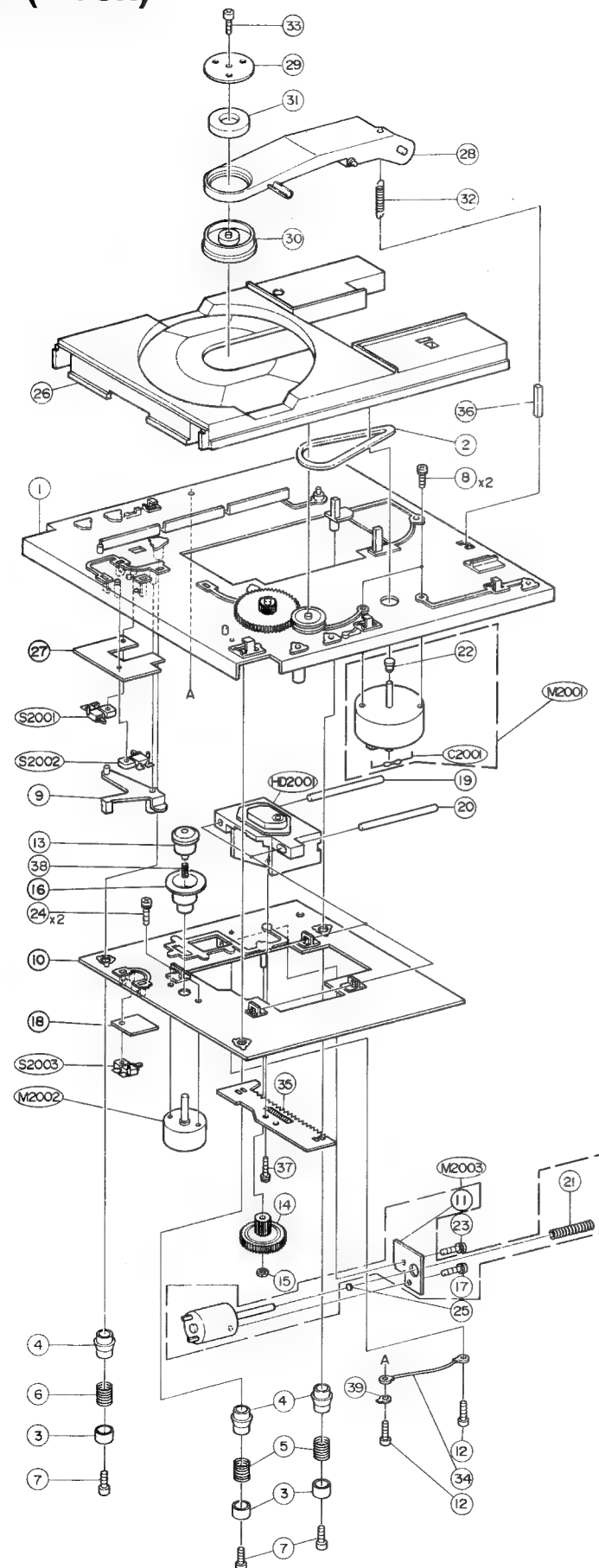
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# Exploded View (Deck)



## Mechanism Assembly Parts List

Note: The parts without part numbers are not supplied.

Symbol No.	IN- dex	Part No.	Description		
1	2-B	01C82391F02	Assy. Chassis Main		
2	2-C	42A81427F02	Belt. Drive		
3		43A81407F01	Bush. Damper		
4		75A81411F01	Rubber. Damper		
5	5-C	41A81428F03	Spring. Compresion		
6	5-B	41A81428F05	Spring. Compresion		
7		03S40012G18	Screw. Tapping (M2.6x6)		
8	2-C	03D40014G19	Screw. W/Washer (M2.6x5)		
9	3-B	45A81434F01	Arm. Switch		
12	5-C	03S44205G30	Screw. Pan (M2.6x4)		
13	3-B	49B81417F01	Disc. Guide		
14	4-C	44A81401F01	Gear. Worm Wheel		
15	5-C	04A41345P02	Washer. Lock (M1.7)		
16	3-B	49B81414F01	Disc. Table		
17	5-C	03D40014G62	Screw. W/Washer(M2x3)		
19	3-C	47A81426F01	Shaft. Head		
20	3-C	47A81426F02	Shaft. Head		
21	4-D	44A96257F01	Worm. Drive		
22	3-C	49A81397F01	Pulley. Loading Motor		
23	4-C	03C40121T31	Screw. W/Double Washer (M2x6)		
24	3-B	03D40014G07	Screw. W/Washer(M2x4)		
25	5-C	43A41182P02	Ball Steel		
26	2-B	01C10716W01	Assy.. Tray Disc		
28	1-C	45C81418F04	Arm. Clamp		
29	1-C	07A81413F02	Bracket. Magnet		
30	1-C	49A81403F01	Wheel. Clamp		
31	1-C	59T81430F01	Magnet		
32	1-C	41B81429F02	Spring. Extension		
33	1-C	03S70494F08	Screw. Bind (M2x5)		
34	5-C	01T92483F01	Assy. Lug Wire 1P		
35	4-C	01A82323F01	Assy. Rack		
36	2-C	75S12196W06	Cushion. Rubber		
37	4-C	03S70494F01	Screw. Bind (M2x5)		
38	3-B	41A81428F01	Spring. Compresion		
39	5-C	01T84733F11	Assy. Lug Wire		
Miscellaneous					
C2001	3-C	08S40154T63	Capacitor. CER. 0.022 $\mu$ F		
HD2001	3-C	88T81528F01	Head. Optical Pick Up		
M2001	3-C	01V11200W42	Assy. Motor. Loading		
M2002	4-B	59T81431F01	Motor. Spindle		
M2003	4-C	01V94700F74	Assy. Slider Motor		
S2001	3-B	40T71025F01	SW.. Detector (IN)		
S2002	3-B	40T71025F01	SW.. Detector (OUT)		
S2003	4-B	40T71025F01	SW.. Detector (Limit)		

Note: ●; For General Foreign model only (EX)  
 ■; For North American model only (UZ)  
 ▲; For West Germany model only (AD)  
 ◆; For Canadian model only (UQ)  
 others; Common

## Packing Assembly Parts List

Symbol No.	Part No.	Description		
101	56S10005W37	Carton, Packing DZ111		
102	56D13765W01	Tray, Packing DZ L		
103	56D13765W02	Tray, Packing DZ R		
104	56B40230G23	Sack, Polythylene		
● 105-1	68P96552F32	Owners, Manual		
▲ 105-1	68P96552F32	Owners, Manual		
■ 105-1	68P96552F31	Owners, Manual		
◆ 105-1	68P96552F31	Owners, Manual		
105-2	28T70621F03	Plug, Output		
105-3	01T82091F01	Assy, Mini Plug Cord		
105-4	01T90545F01	Unit, Remocon RD113		
105-5	60T81756F01	Battery, UM-4UC(2S)FJ		

Note: ● : For General Foreign model only (EK)

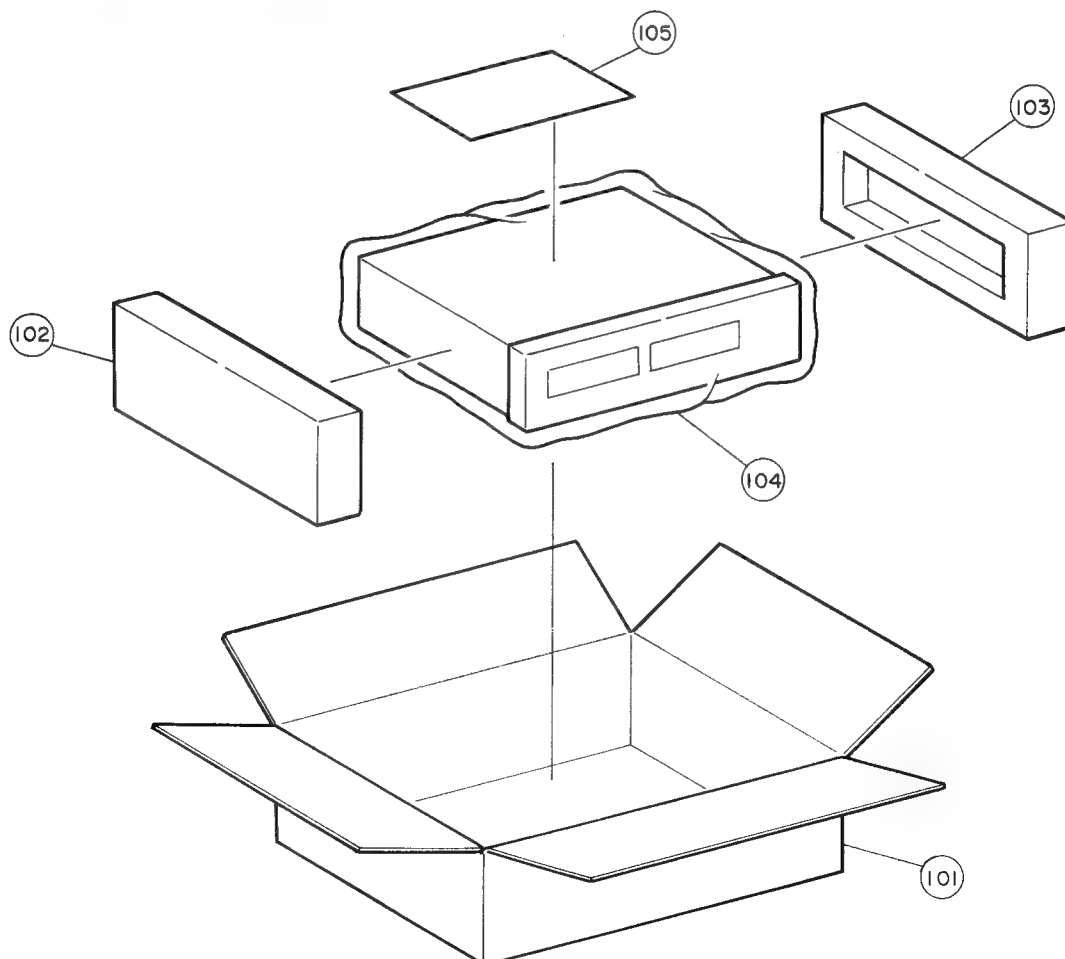
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■ : For North American model only (UZ)

◆ : For Canadian model only (UQ)

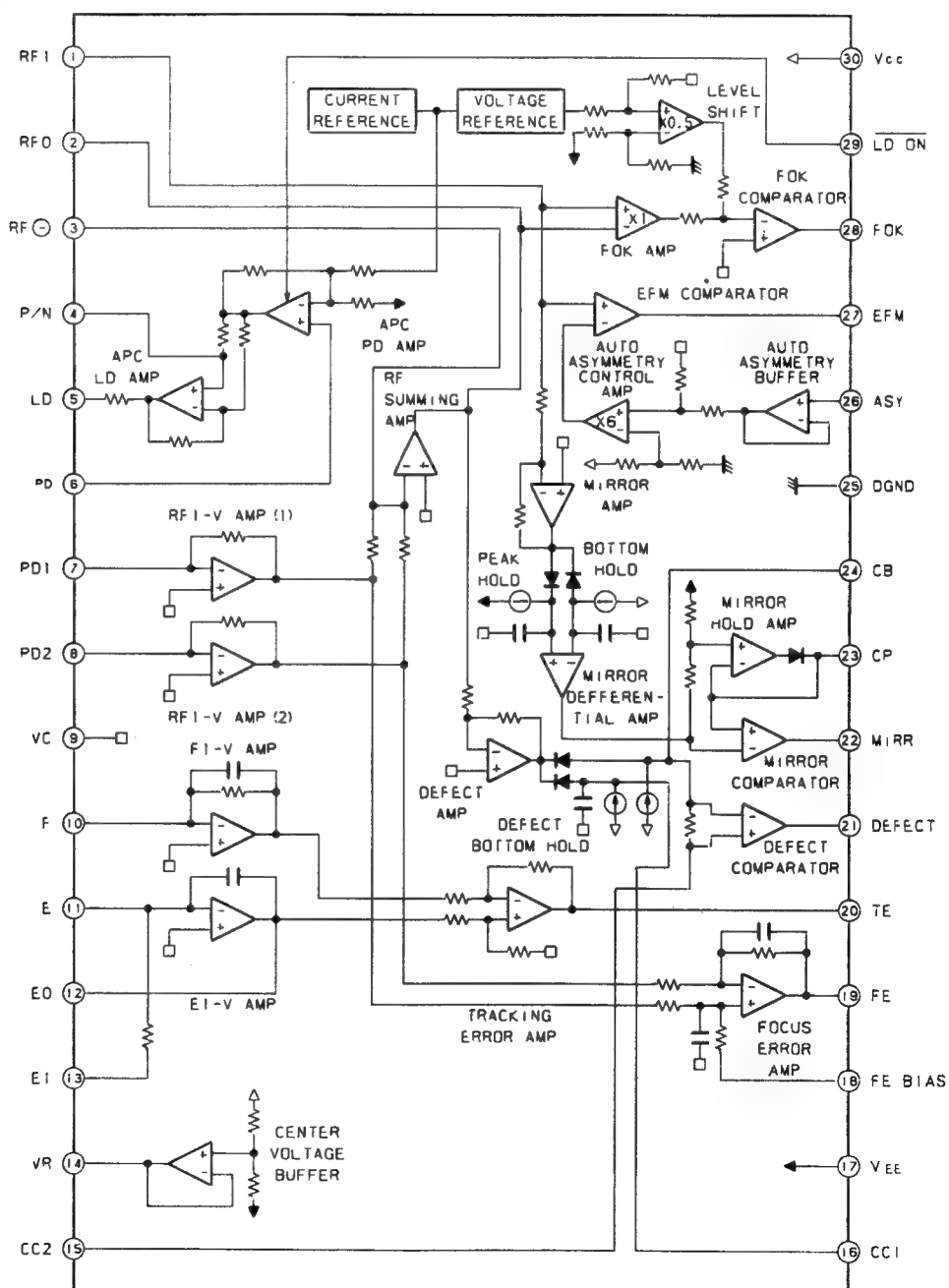
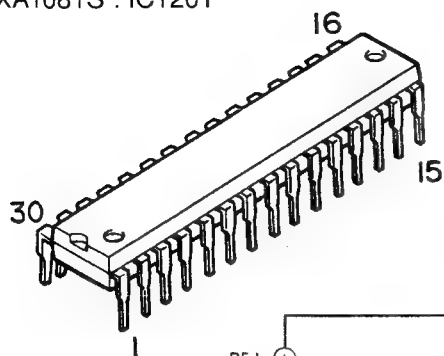
others ; Common

## Packing Method View

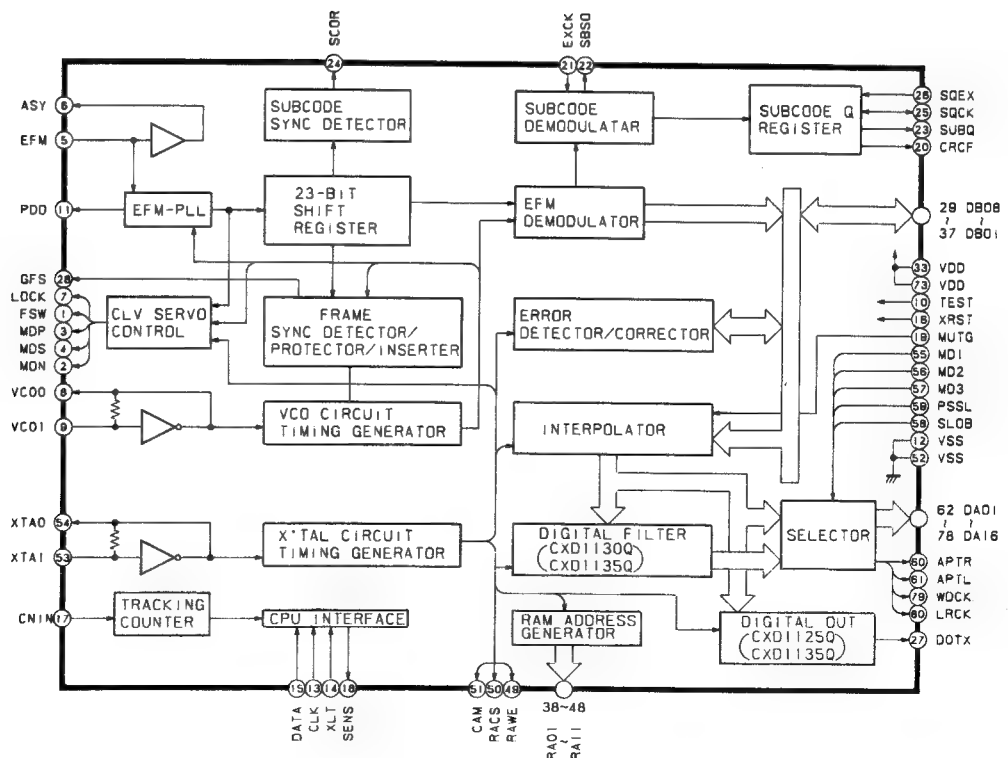
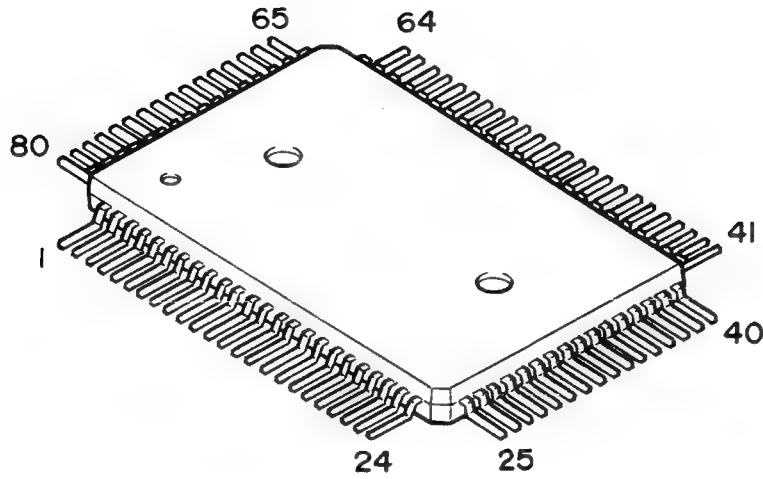


# Semi-Conductor Lead Identifications

CXA1081S : IC1201

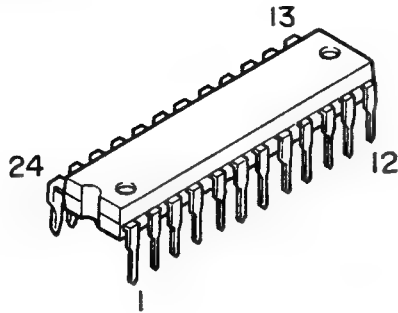


CXD1135QZ : IC1202  
CXD1125QZ



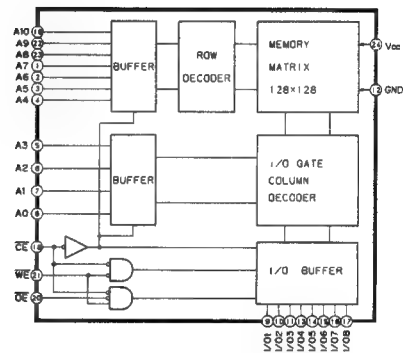
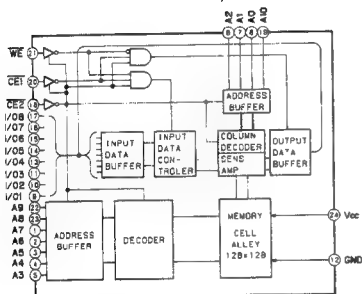


LC3516AS : IC1203  
CXK5816SP

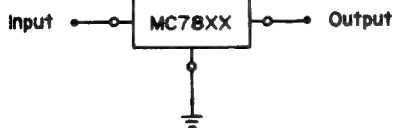
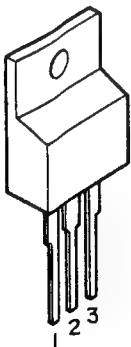


(LC3516AS)

(CXK5816SP)

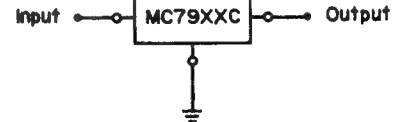
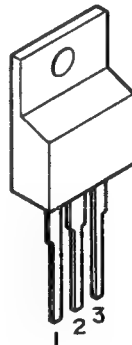


MC7805 : IC1101



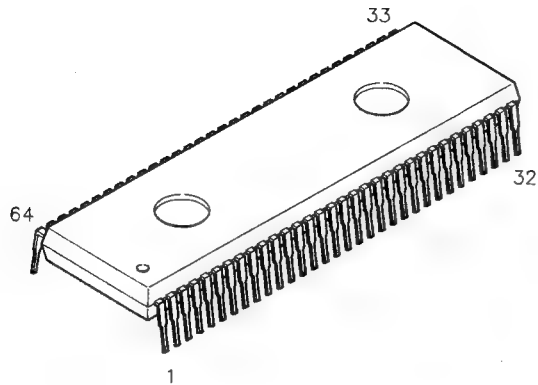
1. Input
2. GND
3. Output

MC7905 : IC1102



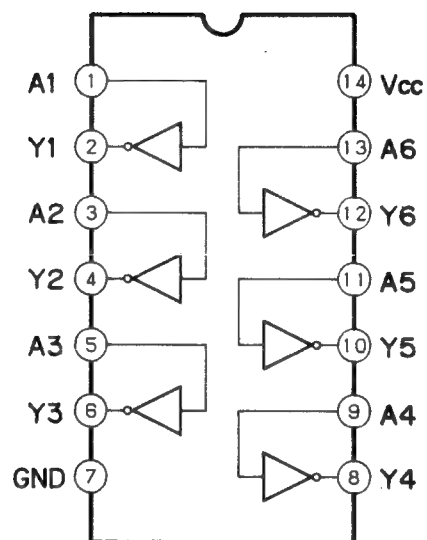
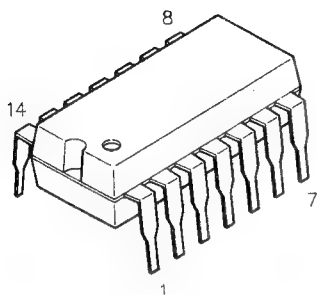
1. GND
2. Input
3. Output

15365W03 : IC1204

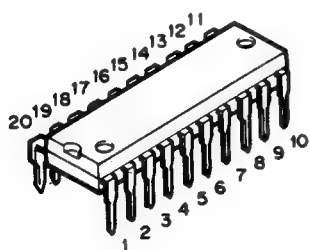


PIN NO.	Description	Signal			PIN NO.	Description	Signal		
		Clock Power Source	In put	Out put			Clock Power Source	In put	Out put
1	SEG4		D11	D11/FS4	33	SQCK		R40/SCR	R40/SCR
2	SEG3		D12	D12/FS3	34	SUBQ		R41/SI	R41
3	SEG2		D13	D13/FS2	35	FOK		R42	R42/SO
4	SEG1		D14	D14/FS1	36	NC		R43	R43/PWM
5	SEG0		D15	D15/FS0	37	SENS		R70	R70/BUZZ
6	5G		R00	R00/FD0	38	NC		R71	R71
7	4G		R01	R01/FD1	39	MUTG		R72	R72
8	3G		R02	R02/FD2	40	GND		R73	R73
9	2G		R03	R03/FD3	41	CLOS		R80	R80
10	1G		R10	R10/FD4	42	OPEN		R81	R81
11	NC		R11	R11/FD5	43	SWRT		R90	
12	NC		R12	R12/FD6	44	KRT2		R91	
13	NC		R13	R13/FD7	45	KRT1		R92	
14	NC		R20	R20/FD8	46	KRT0		R93	
15	NC		R21	R21/FD9	47	RST		RESET	
16	DISP		R22	R22/FD10	48	OSC2	OSC2		
17	EMPH		R23	R23/FD11	49	OSC1	OSC1		
18	GFS		RA0		50	GND	GND		
19	VFDP	Vdisp	RA1		51	CL1	CL1		
20	A MUTE		R30	R30/FD12	52	NC	CL2		
21	CLSSW		R31	R31/FD13	53	TST		TEST	
22	OPN SW		R32	R32/FD14	54	SEGF		D0	D0/FS15
23	/LDON		R33	R33/FD15	55	SEGE		D1	D1/FS14
24	XRST		R50	R50	56	SEGD		D2	D2/FS13
25	XLT		R51	R51	57	SEGC		D3	D3/FS12
26	DATA		R52	R52	58	SEGB		D4	D4/FS11
27	CLK		R53	R53	59	SEGA		D5	D5/FS10
28	INT0		R60/INT0	R60	60	SEG9		D6	D6/FS9
29	SCOR		R61/INT1	R61	61	SEG8		D7	D7/FS8
30	/RMC		R62/INT2	R62	62	SEG7		D8	D8/FS7
31	NC		R63/INT3	R63	63	SEG6		D9	D9/FS6
32	Vcc	Vcc			64	SEG5		D10	D10/FS5

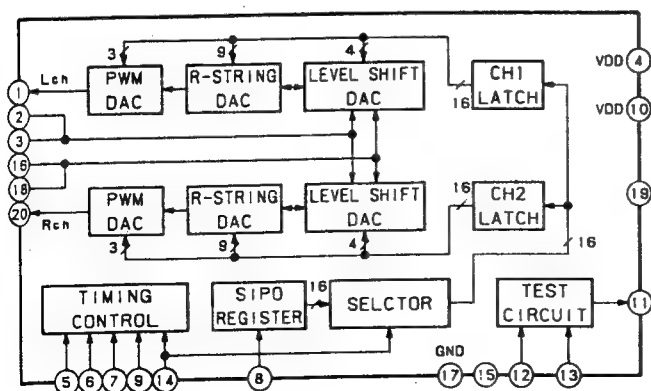
## MC74HCU04 : IC1205



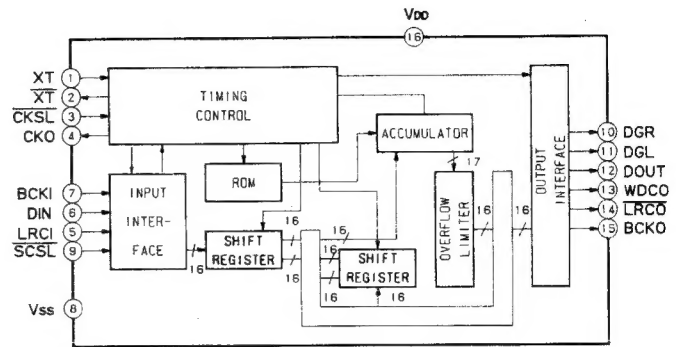
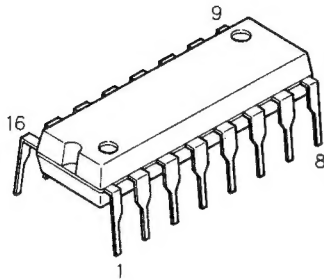
## LC7881C : IC1206



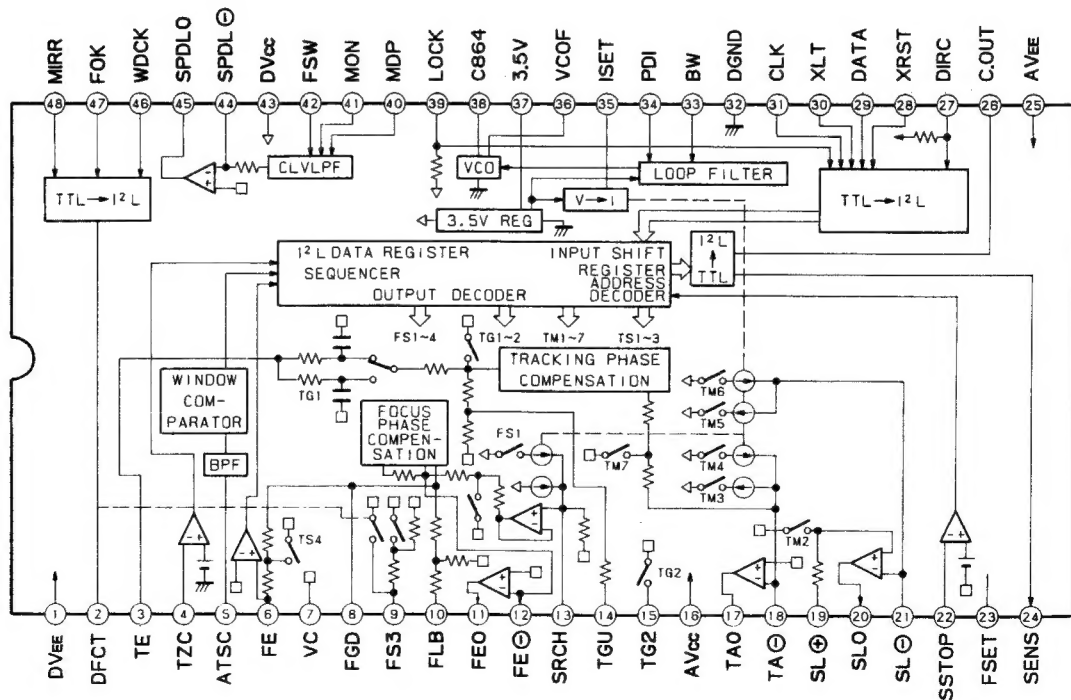
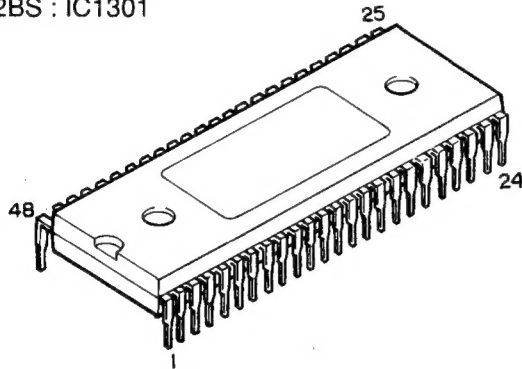
1	CH1 OUT	11	TST OUT
2	Vref H1	12	TST1
3	Vref H2	13	TST2
4	V <sub>DD</sub>	14	IF
5	WCLK2	15	GXD
6	LRCK	16	Vref L1
7	WCLK1	17	GND
8	DATA	18	Vref L2
9	BCLK	19	NC
10	V <sub>DD</sub>	20	CH2 OUT



SM5807EP : IC1207

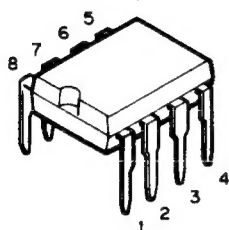


CXA1082BS : IC1301

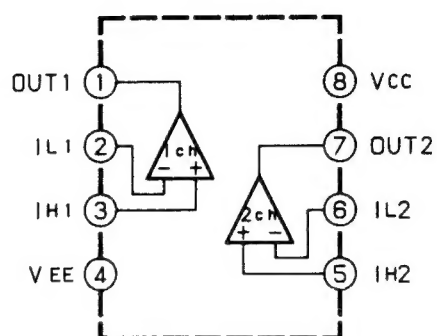
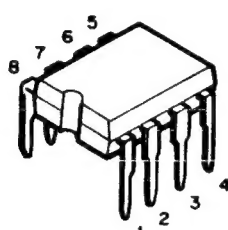


M5218P : IC1401, 1402, 1403  
 BA15218  
 M5216P : IC7201

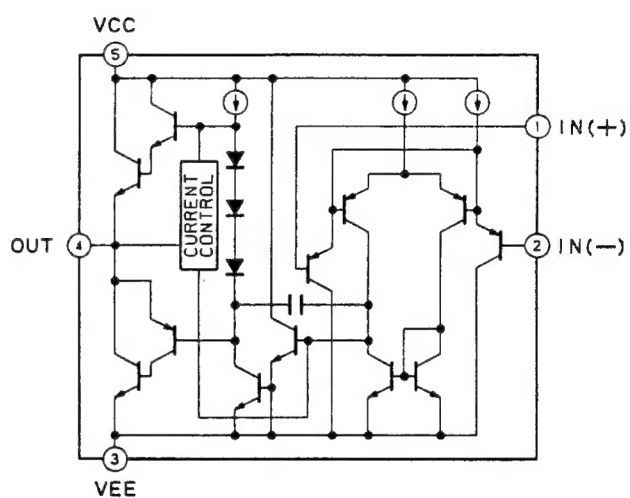
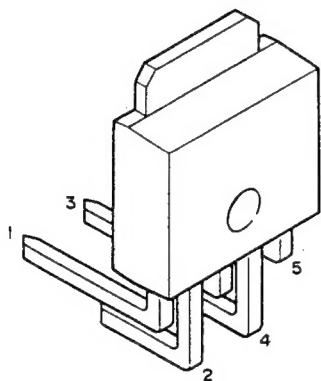
(M5218P, M5216P)



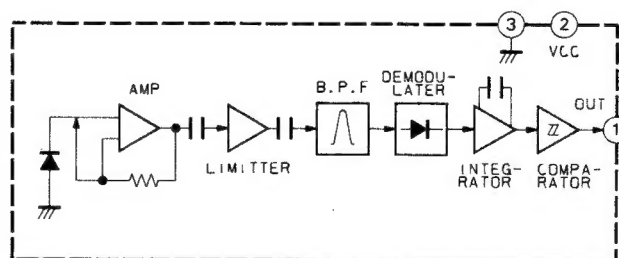
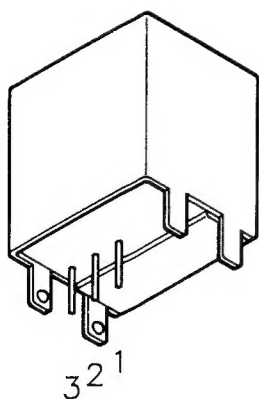
(BA15218)



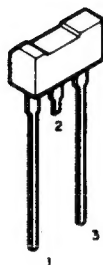
LA6501 : IC1501



GPIU521 : IC9101  
 GPIU521X

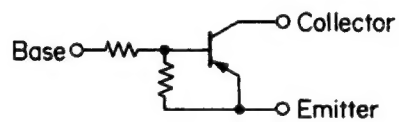
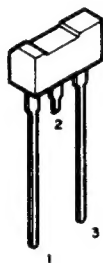


2SA1561 : Q1101, 1214  
 2SB1277 : Q1203, 1301, 1303, 1305, 1307  
 2SC4038 : Q1103, 1105  
 2SD1919 : Q1302, 1304, 1306, 1308



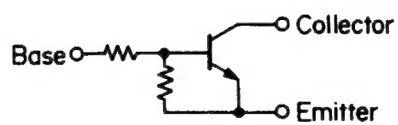
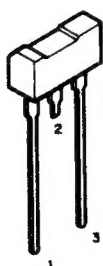
1. Emitter  
 2. Collector  
 3. Base

DTA114EL : Q1104



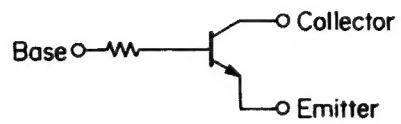
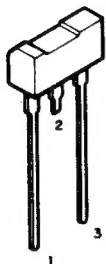
1. Emitter  
 2. Collector  
 3. Base

DTC114EL : Q1102, 1309  
 DTC144EL : Q1212, 1213



1. Emitter  
 2. Collector  
 3. Base

DTC124TL : Q1211



- 1. Emitter
- 2. Collector
- 3. Base

2SD1996 : Q1403, 1404



- 1. Emitter
- 2. Collector
- 3. Base